Meydenbauer Bay Park and Land Use Plan

Draft Environmental Impact Statement (EIS)

June 2009

Meydenbauer Bay
PARK AND LAND USE PLAN

City of Bellevue
Departments of Planning & Community Development and Parks & Community Services
Bellevue, Washington

EDAW | AECOM

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Prepared for

City of Bellevue

Departments of Planning & Community Development and
Parks & Community Services
Bellevue, Washington

Prepared by

EDAW AECOM

Seattle, Washington

This Draft Environmental Impact Statement (EIS) has been prepared in compliance with the State Environmental Policy Act of 1971, as amended (Chapter 43.21C, Revised Code of Washington); the SEPA Rules, effective April 4, 1984, as amended (Chapter 197-11, Washington Administrative Code); and the Bellevue Environmental Procedures Code (Chapter 22.02, City of Bellevue Code), which implement SEPA.

This Draft EIS has been prepared for the purpose of review and comment by citizens, citizens' organizations, and public agencies. Preparation of this document is the responsibility of the City of Bellevue's Departments of Planning & Community Development and Parks & Community Services, which combined are the lead agency for this project. This Draft EIS is not an authorization for an action, nor does it constitute a decision or recommendation for an action; in its final form, it will accompany the Proposed Action and will be considered in making the final decision for the Proposed Action.

Date of Draft EIS Issuance:	**June 4, 2009**
Date of Draft EIS Public Hearing:	**June 23, 2009**
Date Comments are Due on the Draft EIS:	**July 20, 2009**
Anticipated Date of Final EIS Issuance:	**November, 2009**

Carol V Helland

Carol Helland
City of Bellevue Environmental Coordinator

City of Bellevue

Post Office Box 90012 ▪ Bellevue, Washington ▪ 98009 9012

June 4, 2009

Dear EIS Recipient:

This Draft Environmental Impact Statement (Draft EIS) analyzes the effects of adopting a Master Plan and related Comprehensive Plan, Land Use Code, and Zoning Map amendments for the Meydenbauer Bay Park and Land Use Plan. The proposal includes the development of a master plan for a public park on the north shore of Meydenbauer Bay, incorporating the existing Meydenbauer Beach Park, Bellevue Marina, and additional city-owned property along Meydenbauer Bay, and a land use plan for nearby upland properties to improve visual and physical connections to the waterfront. The basis for the proposal is embodied in the City of Bellevue Comprehensive Plan and Parks & Open Space System Plan 2003, and is further reflected in the twelve planning principles approved by the City Council for this proposal.

This is a programmatic, or "nonproject", EIS, as described in Chapter 197-11-442 of the State Environmental Policy Act (SEPA) Rules. This type of analysis is used to evaluate the impacts of adopting planning documents and other agency actions that do not involve constructing specific projects. Although any alternative could support the construction of new park or land development and related transportation system changes, those projects are not being proposed for development at this time and are not defined in detail. Thus, the environmental analysis is at a broad level that will assist City decision-makers in choosing a preferred alternative for guiding development of a new park on Meydenbauer Bay and the redevelopment of land in the study area in accordance with project objectives. Individual projects, including park development, will be required to undergo project-level SEPA analysis after they are formally proposed.

Alternatives Considered

No-Action Alternative: The No-Action Alternative is used as a baseline against which to measure the impacts of the action alternatives. It maintains existing land use designations and zoning for the upland properties, and proposes changes to the city-owned parcels only to the extent necessary to comply with requirements of funding sources used in the purchase of those parcels. These include the removal of city-owned residences and accessory structures, limiting impervious surfaces, providing at least 14 transient boat moorage slips, and improving public access to the shoreline. Some redevelopment of upland parcels, notably at the northeast and southeast corners of Main Street/100th Avenue, is assumed within the limits allowed by existing land use regulations.

Alternative 1: Alternative 1 would incentivize redevelopment in some upland areas by increasing development capacity while maintaining existing building height allowances.

In the "Upper Block" (bounded by Lake Washington Blvd NE, 99th Avenue NE, NE 1st Street, and 100th Avenue NE) allowable residential densities on parcels currently zoned R-30 would be increased to approximately 60 units per acre. In the area "South of Main" (bounded by Main Street, 101st Avenue SE, Meydenbauer Way SE, and 100th Avenue SE/SE Bellevue Place) allowable residential densities on parcels currently zoned R-30 would be increased to approximately 60 units per acre, and limited retail opportunities would be introduced.

Alternative 1 includes the closure of 100th Avenue SE/SE Bellevue Place to vehicle traffic and incorporates the right-of-way into the park design. Park components unique to Alternative 1 include the full daylighting of a culverted stream in the Meydenbauer Beach Park ravine, removing Pier 3 and the existing swim beach pier, removing the roof from Pier 2, providing boat moorage for approximately 40 long-term and at least 14 transient slips, installing a new public pier with viewing platform, restoring/softening approximately 950 linear feet of shoreline, providing a 4,000 square foot community building, providing a 3,000 square foot environmental education center, and providing parking for approximately 106 vehicles.

Alternative 1A: Alternative 1A is the same as Alternative 1, except that it would keep 100th Avenue SE/SE Bellevue Place open to vehicle traffic.

Alternative 2: Alternative 2 treats the Upper Block and area South of Main in a manner identical to Alternative 1. Within the future park, Alternative 2 features more overtly architectural elements and provides for indoor functions that reflect more intense year-round public use. Like Alternative 1, Alternative 2 includes the closure of 100th Avenue SE/SE Bellevue Place to vehicle traffic and incorporates the right-of-way into the park design. Park components unique to Alternative 2 include the partial daylighting of the culverted stream in the Meydenbauer Beach Park ravine, removing Piers 2 and 3, reconfiguring Pier 1, providing boat moorage for 25-35 long-term and at least 14 transient slips, installing a new public pier with elevated viewing platform and floating boardwalk, restoring/softening approximately 800 lineal feet of shoreline, providing an 8,000 square foot community building, providing a 3,000 square foot café, providing up to six vendor kiosks, and providing parking for approximately 156 vehicles.

Alternative 2A: Alternative 2A is the same as Alternative 2, except that it would keep 100th Avenue SE/SE Bellevue Place open to vehicle traffic.

Document Format

This Draft EIS is being distributed to agencies in electronic format as a compact disc (CD). The CD is also available to members of the public at no charge. Paper copies can be requested from the city of Bellevue at the printing cost of $15.00. Please contact the Service First desk at Bellevue City Hall (425-452-6800) to request a copy.

Draft EIS Public Hearing

A Public Hearing for this Draft EIS will be held on **June 23, 2009**, at Bellevue City Hall, 450 110th Avenue NE, Bellevue. The Public Hearing will begin at **6:00 PM** to accept comments on the environmental impacts of the alternatives.

Written Comments

Written comments on the Draft EIS must be received or postmarked by **July 20, 2009** and should be addressed to:

Michael Paine, Environmental Planning Manager
Development Services Department
City of Bellevue
P.O. Box 90012
Bellevue, WA 98009-9012.

Comments may also be submitted by e-mail to mpaine@bellevuewa.gov or on a form you can download from the project website at http://www.bellevuewa.gov/meydenbauer_project_intro.htm.

Next Steps

The Meydenbauer Steering Committee will hold a series of meetings in June and July and will arrive at a Preferred Alternative to be addressed in a Final EIS to be published later this year. The Preferred Alternative may combine elements of the No Action Alternative, Alternative 1, and/or Alternative 2. For further information about this Draft EIS, please contact Mike Bergstrom (425-452-6866 or mbergstrom@bellevuewa.gov) or Robin Cole (425-452-6195 or rcole@bellevuewa.gov).

Sincerely,

Carol V Helland

Carol V. Helland, Environmental Coordinator
Department of Development Services

Fact Sheet

Proponent:	City of Bellevue, Planning and Community Development and Parks & Community Services Departments
Location:	Meydenbauer Beach Park and surrounding parcels. The proposal's "primary study area" is generally bounded by 98th Place NE/Meydenbauer Beach Park on the west, NE 1st Street on the north, 101st Avenue SE on the east, and Meydenbauer Way SE and Meydenbauer Bay on the south. The City owns approximately 10 acres of property within the primary study area, along or in proximity to the shoreline of Meydenbauer Bay. A larger "secondary study area" arcs around the perimeter of the primary study area.
Project:	Meydenbauer Bay Park and Land Use Plan
Description of Proposed Action:	The proposal is to develop a long-range land use and park master plan for the primary study area. The basis for the proposal is embodied in the City of Bellevue Comprehensive Plan and Parks & Open Space System Plan 2003, and is further reflected in 12 planning principles approved by the City Council on March 19, 2007, for this proposal. The proposal includes the development of a master plan for a public park on the north shore of Meydenbauer Bay, incorporating the existing Meydenbauer Beach Park and additional City-owned property along Meydenbauer Bay, and a land use plan for nearby upland properties to improve visual and physical connections to the waterfront. This programmatic environmental impact statement (EIS) evaluates two action alternatives that reflect a mix of programs, uses, structures, and design elements for park and upland development. Each of these alternatives includes scenarios for closing 100th Avenue SE/SE Bellevue Place to vehicle traffic, as well as keeping this road open to vehicles. The EIS also evaluates a No-Action Alternative, which would maintain existing land use designations and zoning for the upland properties and which proposes changes to the City-owned parcels only to the extent necessary to comply with requirements of funding sources used in the purchase of those parcels. The alternative that is ultimately selected could be any one of the action or no-action alternatives, or could include elements from each of the alternatives.
Responsible Official:	Carol Helland, City of Bellevue Environmental Coordinator P.O. Box 90012 Bellevue, Washington 98009-9012
Staff Contacts:	Proponent: Department of Planning and Community Development Michael Bergstrom, Senior Planner 425-452-6866 Parks & Community Services Department Robin Cole, Project Manager 425-452-6195

	EIS: Development Services Department Michael Paine, Environmental Planning Manager 425-452-2739
Required Licenses and Permits:	City of Bellevue City Council Resolution Adopting Master Plan City of Bellevue City Council Ordinances Adopting Comprehensive Plan and Land Use Code Amendments (Note: Additional licenses and permits will be required at the project level)
Contributors:	City of Bellevue EDAW AECOM Moffatt & Nichol Perteet
Date of Issue:	June 4, 2009
Date of Hearing on DEIS:	June 23, 2009 Public Hearing begins at 6:00 p.m., Bellevue City Hall, 450 110 Avenue NE, Bellevue, Washington 98004.
Date Comments are Due:	July 20, 2009 Written comments may be mailed to Michael Paine, Environmental Planning Manager, Development Services Department, P.O. Box 90012, Bellevue, WA 98009-9012, or sent by e-mail to mpaine@bellevuewa.gov.
Nature and Date of Final Action by City:	The Bellevue City Council is expected to adopt by resolution a master plan for the proposal in 2010 and separately or together with the master plan adopt by ordinance a set of Comprehensive Plan and Land Use Code Amendments in 2010 or 2011.
Location of Background Data:	Data used during the preparation of this document may be viewed at the City of Bellevue Department of Planning and Community Development, 450 110 Avenue NE, Bellevue, Washington 98009. Background information is also available online at: http://www.bellevuewa.gov/meydenbauer_project_intro.htm.
Future Environmental Review:	The project alternatives in this document are analyzed at the programmatic level, in accordance with Washington Administrative Code (WAC) 197-11-442. This level of analysis allows decision-makers to compare the relative benefits and drawbacks of alternatives but does not assess impacts in sufficient depth for development permits to be granted. Future analyses and environmental review will accompany project-specific actions anticipated as part of the proposed action.
Copies to the Public:	$15.00 Paper copies may be purchased at the Service First desk at City Hall, 450 110 Avenue NE, Bellevue, Washington 98009. Compact discs (CDs) with the EIS in electronic format are also available at Service First at no charge. Electronic copies may also be downloaded at: http://www.bellevuewa.gov/meydenbauer_project_intro.htm.

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Acronyms and Abbreviations

ADA	Americans with Disabilities Act
ADT	average daily trips
AKART	all known, available, and reasonable methods of prevention, control, and treatment
BBS	bicycle lanes on both sides
BCC	Bellevue City Code
BKR	Bellevue-Kirkland-Redmond
BMP	best management practice
BOBS	Bicycle lanes on one or both sides
BOS	Bicycle lanes on one side
BTC	Bellevue Transit Center
CAAA	Clean Air Act Amendments
CAO	Critical Areas Ordinance
CESCL	certified erosion and spill control lead
CFR	Code of Federal Regulations
CFU/100 mL	Colony Forming Units per hundred milliliters
CH4	methane
CIP	Capital Investment Program
CO	carbon monoxide
CO2	carbon dioxide
COB	City of Bellevue
Corps	U.S. Army Corps of Engineers
CSZ	Cascadia Subduction Zone
CTR	Commute Trip Reduction
CWA	Clean Water Act
DAHP	Department of Archaeology and Historic Preservation
dB	decibels
dB re: 1 µPa	decibels referenced to a pressure of 1 micropascal
dBA	A-weighted dB
dBA/DD	dBA per doubling of distance
dB_{peak}	peak sound pressure
dB_{RMS}	Root Mean Square
DNR	Washington Department of Natural Resources
DNS	Determination of Nonsignificance
DPS	Distinct Population Segment
DS	Determination of Significance
du/a	dwelling units per acre
Ecology	Washington State Department of Ecology
EDNA	Environmental Designations for Noise Abatement
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
ESU	Evolutionarily Significant Unit
FAR	Floor Area Ratio
FHWA	Federal Highway Administration
FR	Federal Register
FTA	Federal Transit Administration

GHGs	greenhouse gases
GIS	geographic information system
GMA	Growth Management Act
GTEC	Growth and Transportation Efficiency Center
HABS/HAER	Historic American Buildings Survey/Historic American Engineering Record
HAPs	Hazardous air pollutants
HPA	Hydraulic Project Approval
HSPF	Hydrological Simulation Program – Fortran
HUC	Hydrologic Unit Code
HVAC	heating ventilation air conditioning
Hz	Hertz
I-90	Interstate 90
IAC	Interagency Committee
ITE	Institute of Transportation Engineers
kV	kilovolt
L_{dn}	day-night noise level
LED	light-emitting diode
L_{eq}	equivalent noise level
lf	linear feet
LID	Low Impact Development
L_{max}	maximum noise level
L_{min}	minimum noise level
LOS	levels of service
LUC	Land Use Code
MACT	Maximum Achievable Control Technology
MBTA	Migratory Bird Treaty Act
MMA	Mobility Management Area
MS4	municipal separate storm sewer system
MSA	Magnuson-Stevens Act
MVA	Megavolt-amperes
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAC	Noise Abatement Criteria
NAVD88	North American Vertical Datum of 1988
NBF	No bicycle facilities
NEPA	National Environmental Policy Act
NESHAP	national emissions standards for HAPs
NHPA	National Historic Preservation Act of 1966
NMFS	National Marine Fisheries Service
NO_2	nitrogen dioxide
NOAA	National Oceanic and Atmospheric Administration
NOx	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NPF	No pedestrian facilities
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NS	No status
nsf	net square feet
NWCB	Noxious Weed Control Board
OEHHA	Office of Environmental Health Hazard Assessment
OHWM	ordinary high water mark

OWSC	One-way stop controlled intersections
Pa	Pascals
PHS	Priority Habitats and Species
PM_{10}	particulate matter less than 10 microns in diameter
$PM_{2.5}$	fine particulate matter
ppm	parts per million
PPLUP	Preliminary Preferred Land Use Plan
PPV	people-propelled vessel
PSCAA	Puget Sound Clean Air Agency
PSE	Puget Sound Energy
RCO	Washington State Recreation and Conservation Office
RCW	Revised Code of Washington
RMS	root mean square
SBS	Sidewalk on both sides
SBUH	Santa Barbara Urban Hydrograph
SC	State Candidate
SEPA	State Environmental Policy Act
sf	square foot
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SM	State Monitored
SMA	Shoreline Management Act
SMP	Shoreline Management Program
SO_2	sulfur dioxide
SOBS	Sidewalk on one or both sides
SOC	Federal status species of concern
SOI	Species of Importance
SOS	Sidewalk on one side
SOV	single occupant vehicle
SPL	sound pressure level
SR	State Route
SS	State Sensitive
SSDP	Shoreline Substantial Development Permit
SWMP	Stormwater Management Program
SWPP	Stormwater Pollution Prevention
SWPPP	Stormwater Pollution Prevention Plan
T-BACT	toxic best available control technologies
TDM	Transportation Demand Management
TESC	temporary erosion and sedimentation control
TESCM	temporary erosion and sedimentation control measures
TFP	Transportation Facilities Plan
TMDL	Total Maximum Daily Load
TPH	total petroleum hydrocarbons
TPY	tons per year
TSS	Total Suspended Solids
TWSC	two-way stop-controlled (intersections)
USC	U.S. Code
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
v/c	volume to capacity
VdB	velocity decibels

VMT	vehicle miles traveled
VOC	volatile organic compound
WAC	Washington Administrative Code
WCAA	Washington Clean Air Act
WDFW	Washington Department of Fish and Wildlife
WQA	Water Quality Assessment for Washington
WRIA	Water Resource Inventory Area
WSDOT	Washington State Department of Transportation
WWHM	Western Washington Hydrology Model
$\mu g/m^3$	micrograms per cubic meter
µin/sec	microinch per second

CHAPTER 1 – INTRODUCTION AND SUMMARY

The City of Bellevue (the City) seeks to create a major citywide park and waterfront destination on the north shore of Meydenbauer Bay, visually and physically connected to the downtown's commercial and residential areas and linked to nearby neighborhoods. The City has embarked on a master planning process for a new waterfront park on Meydenbauer Bay and nearby upland properties on and near the shoreline of Lake Washington in Bellevue, King County, Washington. The City has prepared this programmatic Environmental Impact Statement (EIS) to analyze the potential effects on the natural and built environment associated with the proposed Meydenbauer Bay Park and Land Use Plan. The location of the EIS study area is shown in Figure 1.1-1.

1.1 PROJECT BACKGROUND AND OBJECTIVE

The Meydenbauer Bay Park and Land Use Plan is rooted in long-standing policies contained in the City of Bellevue Comprehensive Plan and Parks & Open Space System Plan (initially 1987, and most recently 2008 and 2003, respectively). These policies envision increasing Bellevue's access to the waterfront at Meydenbauer Bay and providing waterfront opportunities for future generations. They promote a visual, physical, and graceful pedestrian connection from downtown to Meydenbauer Bay that terminates in a significant waterfront presence; provides unique recreation, retail, and tourism opportunities; and enhances the role of the park as a major pedestrian destination. The policies suggest that connections can be achieved with expanded streetscape amenities, property acquisition, and/or public amenities created by developer incentives. The policies acknowledge opportunities to facilitate water-based recreational activities, enhance shoreline amenities, and promote Meydenbauer Bay's historical significance in the region's development.

The Meydenbauer Bay Park and Land Use Plan brings these policies together and further refines the City's proposal to develop a public park on the north shore of Meydenbauer Bay that incorporates the existing Meydenbauer Beach Park and additional City-owned properties along Meydenbauer Bay. The plan also reflects the City's proposal to encourage redevelopment of nearby upland properties to improve the visual and physical connections between downtown and a waterfront park of city-wide importance.

Consistent with these policies, the Meydenbauer Bay Park and Land Use Plan examines park design and use opportunities as well as surrounding land use and development patterns. City staff summarized objectives of the plan in a memorandum to City Council February 5, 2007 (Foran and Terry 2007):

- Enhance public access to the Meydenbauer Bay waterfront.
- Help distinguish Bellevue as a waterfront city.
- Identify activities and design elements that capitalize on the area's unique waterfront location.
- Improve the physical and visual connections between downtown and Meydenbauer Bay.
- Provide for redevelopment in the upland area between Old Bellevue and Meydenbauer Beach Park in a manner that reflects the area's waterfront proximity and complements the new park.

- Closely integrate master planning for Meydenbauer Beach Park and planning for the adjacent neighborhood.

In March 2007, the City Council adopted the following planning principles to help guide the Meydenbauer Bay Park and Land Use Plan:

1. **Remarkable and memorable shoreline experience.** The park will be an extraordinary community-wide public asset. The new park will greatly increase waterfront access, recreational opportunities for all Bellevue residents, and in conjunction with its proximity to the Downtown Park and neighborhood, establish Bellevue as a waterfront city. The surrounding area should complement and take advantage of the unique shoreline location.

2. **Spectrum of activities.** The new park should provide visitors with a wide range of activities and experiences, from active recreation such as swimming and sailing to passive enjoyment of intimate, green, natural areas. The park plan should artfully blend traditional park uses with a new urban experience, allowing individuals to enjoy different or multiple experiences with each visit or over time.

3. **Complementary land uses.** Urban design and land uses in the upland area adjacent to the park should be pedestrian-oriented and serve the broader community to make the transition from the upland to the shoreline seamless, enjoyable, inviting, and compelling. They should draw the pedestrian toward the water, convey a sense of excitement, and provide an interactive experience between the waterfront and upland areas.

4. **Increased physical and visual access.** Corridors that visually open up the waterfront from upland areas and that facilitate pedestrian movement from Downtown Park to the waterfront should be maximized. It is critical that corridors and public spaces overcome real or perceived physical obstacles to reaching the shoreline.

5. **Pedestrian priority.** The park and its connections should be places that can be enjoyed by pedestrians without fear of conflicts with automobiles. Where vehicle drives or parking areas are necessary, they should be designed and located to promote a "pedestrian first" message.

6. **Economic vitality.** The park and its connections should support the nearby business community, providing an interactive and welcoming environment for downtown employees, residents, and visitors. Land uses and urban design elements should contribute to the economic vitality of the area as a whole.

7. **Superior design.** The park should be reinforced, communicated, and celebrated through high quality urban design, landscape architecture, building design, and streetscape treatment, not only within the park itself but also throughout nearby public spaces and park connections. The plan should reflect a high standard of excellence.

0 0.5 1 2 Miles

Figure 1.1-1: Vicinity Map

Sources: City of Bellevue GIS 2009, King County GIS 2009

Meydenbauer Bay Park and Land Use Plan EIS
City of Bellevue

8. **Environmental stewardship.** The park design should respect and reflect its unique and sensitive waterfront setting. The plan should explore opportunities to incorporate measures that improve the shoreline characteristics and water quality in the bay. Best practices for sustainable building and land management should be incorporated.

9. **History.** The park design should recognize the heritage of Meydenbauer Bay, from the time of Native Americans, explorers, and early settlers to the industries of whaling, ferrying, and today's residential and pleasure boat moorage. The plan should assess opportunities to preserve and reuse structures of historical note and incorporate means to animate the bay's rich heritage through public art and interpretive programs.

10. **Neighborhood enhancement and protection.** The land use component should be a catalyst for revitalization of older uses while minimizing impacts on neighboring residential areas. Redevelopment of properties in the study area or conversion of apartment buildings to condominiums is expected in the foreseeable future. The land use plan should ensure through rules or incentives that these actions occur in a manner that is both consistent with the area's land use vision and sensitive to adjacent residential uses.

11. **Coordinated planning process.** The park master plan and the land use plan will impact and influence one another. The planning schedule needs to be flexible and expedient, necessitating close coordination.

12. **Commitment to implement.** The Waterfront Plan should include an implementation strategy that leads to the fulfillment of the vision.

The City Council also approved a study area for the plan that includes a "primary study area" and a "secondary study area" (Figure 1.1-2).

The primary study area, which is referred to as the study area in this EIS, includes both City-owned and privately owned properties. Parcels within the study area fall into two groups: "park parcels" and "upland parcels." Park parcels are City-owned properties located south of Lake Washington Boulevard NE, that extend from the ravine along the shoreline from Meydenbauer Beach Park to the Bellevue Marina (which includes the Meydenbauer Bay Marina parcel and the Yacht Basin parcel), and wrapping around the inside of 100th Avenue SE to Main Street. The park parcels are residential properties (nine single-family parcels, the Bellevue Marina, and one apartment complex) acquired specifically for park expansion (see Section 2.1.1). Upland parcels include several groups of privately owned properties, plus one City-owned property, in various locations close to the park parcels (Figure 1.1-3).

1.2 PUBLIC INVOLVEMENT

The City undertook a substantial master planning and public involvement process beginning in early 2007 that included convening a Steering Committee whose first meeting was held on April 19, 2007. An open house 1 month later (May 15, 2007) was attended by approximately 60 people. Three additional public open houses or workshops were held in 2007 and were well attended by the public.

Those attending the open houses and workshops included many who lived near the park and some who lived south of Meydenbauer Bay; most attendees were Bellevue residents.

The City has provided ongoing opportunities for public involvement and comment throughout the planning process, including a website, online survey, and other community events and outreach measures. Monthly Steering Committee meetings were held during the early brainstorming and development of land use scenarios for the upland portions of the study area and development of park concepts along the shoreline. The City also provides opportunities for public comment through meetings of the Planning Commission, Parks and Community Services Board, and City Council. In 2008, the Steering Committee continued to meet, and two additional public workshops were held to develop and refine the park proposal and alternatives.

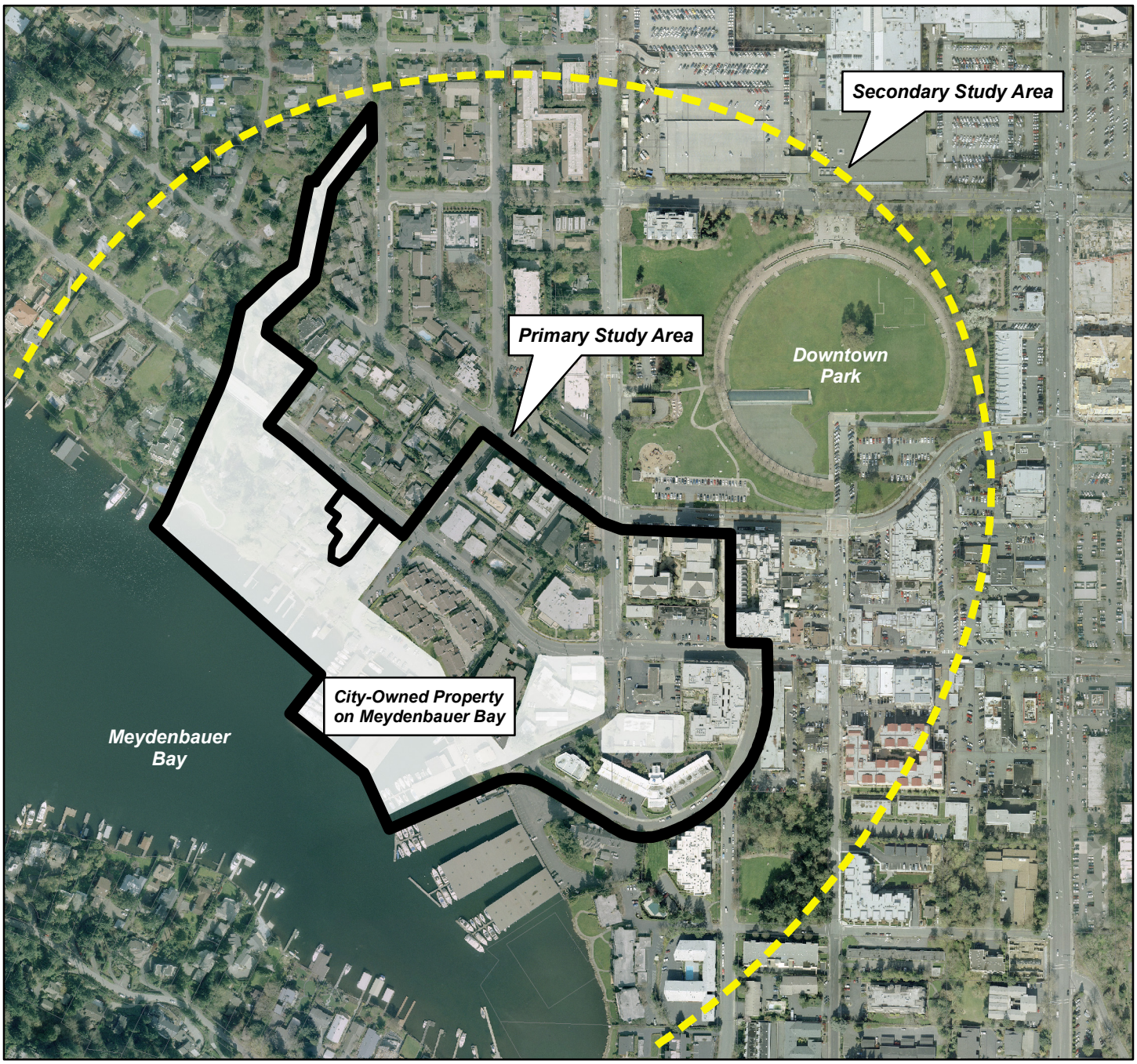
In late 2008, the City decided to prepare an EIS and subsequently published a Determination of Significance (DS) on October 9, 2008. An EIS scoping meeting was held on October 29, 2008. In addition to scoping meeting testimony, the City received numerous scoping letters and email communications (Appendix A). Following issuance of the Draft EIS, there will be a public comment period, which will include a public hearing on the Draft EIS. Publication and notice of availability of the Final EIS will occur later in 2009. The Final EIS will provide decision-makers with environmental information to help them decide whether to approve the proposal, approve it with conditions (mitigate), or deny the proposal.

The planning process and the associated public involvement process will continue into 2010. The Steering Committee will complete its work in 2009, culminating in a recommended alternative or plan incorporating a vision for both the land use and park components. A Final EIS will be prepared that will reflect the Steering Committee recommendation. Ultimately, the City Council will make the final decision on the recommended plan. The City could begin to implement the Meydenbauer Bay Park and Land Use Plan by the adoption of any associated amendments to the Comprehensive Plan, Land Use Code, or other City policy or regulatory documents in 2010. The timing of physical development of the new waterfront park or redevelopment of nearby upland properties will depend on a number of factors, including final design, permitting, and financing considerations, as well as (in the case of redevelopment of private properties) real estate market conditions.

1.3 ALTERNATIVES OVERVIEW

The purpose of this programmatic EIS is to describe the potential impacts associated with implementing the Meydenbauer Bay Park and Land Use Plan. The programmatic EIS evaluates potential impacts associated with two action alternatives compared to a no-action alternative. This EIS evaluates two action alternatives that reflect a mix of programs, uses, and design elements for park and upland development that would achieve the City's planning objectives. While both action alternatives envision closing 100th Avenue SE/SE Bellevue Place to vehicle traffic (between Main Street and Meydenbauer Way SE) in order to create a significant pedestrian entry and downtown connection, each alternative also includes a variant in which the road would remain open to vehicles.

Meydenbauer Waterfront Primary and Secondary Study Areas

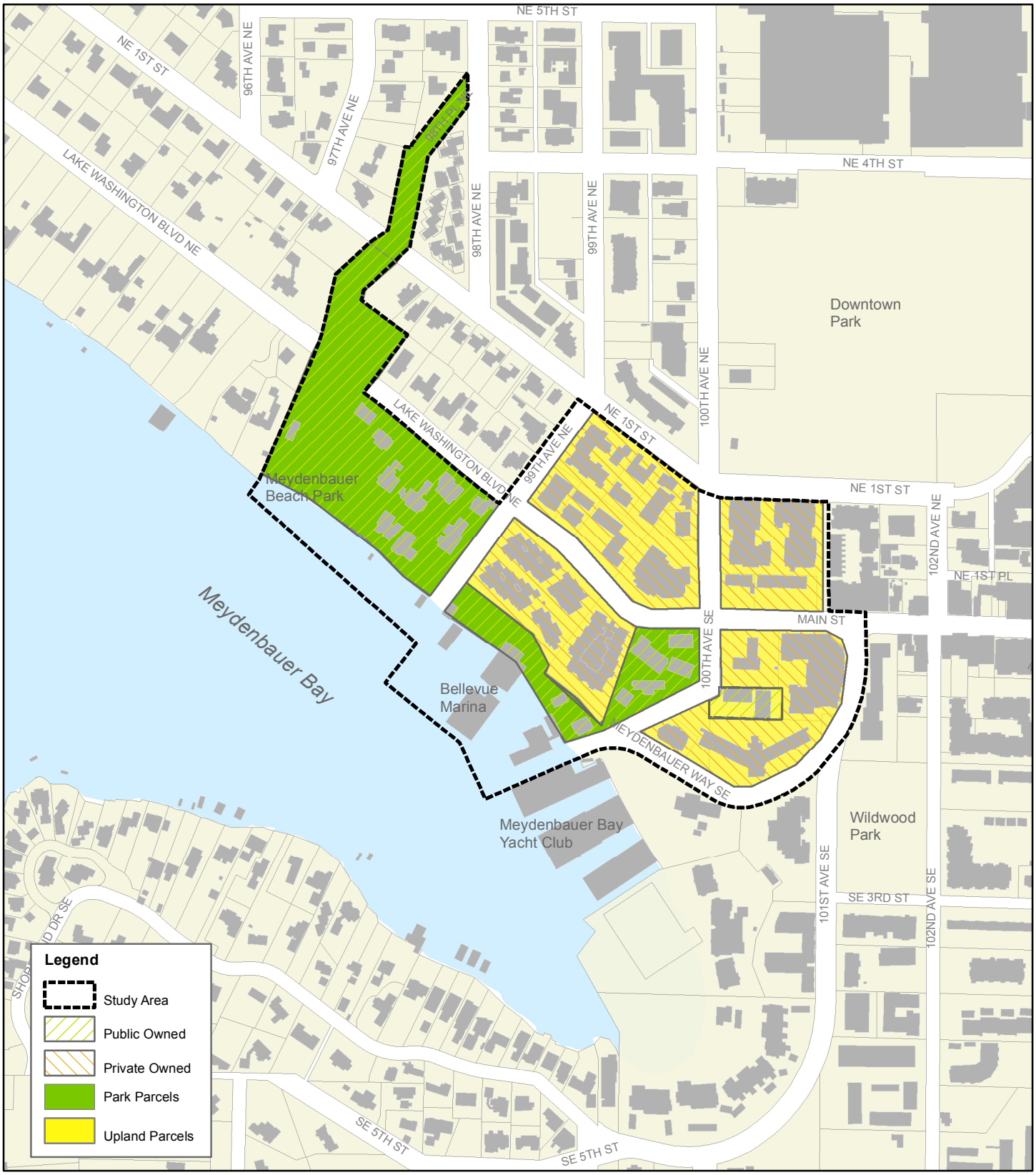


Source: City of Bellevue 2007

NOTE: This figure includes properties the City acquired after the primary study area was designated.

0 125 250 500 Feet

Figure 1.1-2: City Council Approved Study Areas



Source: City of Bellevue GIS 2009

0 125 250 500 Feet

Figure 1.1-3 Park and Upland Parcels

Meydenbauer Bay Park and Land Use Plan EIS
City of Bellevue

The park portions of the two action alternatives emphasize different planning visions; however, the upland land use scenarios would be the same under both action alternatives. This EIS also includes a mandatory no-action alternative, which provides a future baseline against which to measure the impacts of the action alternatives. The No-Action Alternative does not necessarily assume that the status quo does not change; rather, it assumes that changes would occur under existing regulations and/or obligations related to funding used to purchase some of the park properties.

These alternatives are described briefly below and in more detail in Chapter 2. All alternatives have a 2020 planning horizon, which is the time frame for implementation.

1.3.1 No-Action Alternative

The No-Action Alternative (Figure 1.3-1) provides a baseline for measuring the impacts of the action alternatives. The No-Action Alternative assumes no major changes to the Comprehensive Plan, infrastructure plans, or land use regulations within the 2020 planning horizon, except for those changes already programmed as part of existing City plans or plans proposed by other agencies, or as necessary to fulfill funding source obligations.

The No-Action Alternative generally would continue the existing zoning and land use mix in the Meydenbauer Bay Park and Land Use Plan study area. Park redevelopment would consist of those improvements necessary to meet the requirements of the various park acquisition funding sources. These include demolishing the existing single-family residences (and accessory structures such as docks) to expand the park, limiting impervious surfaces and relocating most parking from the Bellevue Marina parcels, and modifying one or more of the existing moorage piers to accommodate a total of at least 14 transient (i.e., public day use) slips. Since the No-Action Alternative assumes limited funding for park development, few new park amenities are envisioned and would be limited to a connecting shoreline trail, relocated surface parking, modest landscaping, and other minor improvements to allow the aggregated property to function as a park. The No-Action Alternative would retain the public pier and all other improvements at Meydenbauer Beach Park, the three moorage piers at the marina, and some existing parking. Approximately 70 public parking spaces would be provided for park and marina uses. The No-Action Alternative assumes a moderate level of residential and commercial redevelopment, within the limits of that allowed under existing land use codes, of two underdeveloped upland sites (i.e., Chevron station and Brant Photography).

1.3.2 Alternative 1

While there are many elements common to all three alternatives, Alternatives 1 and 2 place greater emphasis on providing shoreline access and public facilities associated with a waterfront park, and on strengthening connections between the waterfront and downtown. Alternative 1 (Figure 1.3-2) would revise the Comprehensive Plan policies and zoning regulations to allow the redevelopment of upland parcels within an overlay district or through some other zoning mechanism. (Note: The use of the term “overlay district” or “other zoning mechanism” in this EIS is not intended to suggest a specific means by which the goals of this proposal would be accomplished; rather, it is used to suggest that some aspects of the proposal would require

changes to the Comprehensive Plan and/or Land Use Code, and possibly to other development regulations as well. The specific mechanism by which that would be accomplished is yet to be determined.) It also assumes some redevelopment under existing zoning (i.e., Brant Photography). It also would provide landscaping and pedestrian improvements to connect the planning area and downtown.

Alternative 1 would close 100th Avenue SE and coordinate the redevelopment of approximately 2.65 acres of land under several ownerships, including one City-owned parcel, to improve pedestrian connections and activities by developing a series of mid-block pathways and terraces and other spaces usable by the general public. This alternative would provide additional development capacity (60 units per acre) in the upper block area between 99th Avenue NE and 100th Avenue NE, and between NE 1st Street and Lake Washington Boulevard NE, and in the area south of Main Street, east of 100th Avenue SE, while maintaining existing height limits but allowing increased lot coverage and reduced setbacks. The goal is to improve right-of-way edge conditions (upper block) and achieve public spaces, building forms, and uses (south of Main Street) that complement and provide a transition to the park and connections from the park to Old Bellevue, Downtown Park, and downtown.

The primary park components unique to Alternative 1 are:

- Daylight the entire stream through the park ravine.
- Provide terraced gardens and accessible path from Main Street to the marina.
- Remove Pier 3 and the public pier.
- Remove permanent protective cover from Pier 2.
- Provide moorage for approximately 40 long-term and at least 14 transient slips.
- Install a new public pier with viewing platform (east edge of the swimming beach).
- Restore approximately 950 linear feet (lf) feet of shoreline to more natural conditions.
- Provide an approximately 4,000 square foot (sf) community building.
- Provide an approximately 3,000 sf environmental education center.
- Provide public parking (approximately 106 spaces) for park and marina uses.

Alternative 1A, a road open variant, is also considered in analyzing effects on certain elements of the environment (e.g., transportation, parks and recreation), but is not considered in analyzing effects on most other elements. Therefore, Alternative 1A is only analyzed where the effects are sufficiently distinct from Alternative 1.

1.3.3 Alternative 2

Alternative 2, like Alternative 1, emphasizes the provision of shoreline access and public facilities associated with a waterfront park, and on strengthening connections between the waterfront and downtown. The two action alternatives differ primarily in the program and design of open space and recreational elements. Alternative 2 features more overtly architectural elements and the provision for indoor functions that reflect more intense year-round public use.

Alternative 2 (Figure 1.3-3) would revise the Comprehensive Plan policies and zoning regulations to allow redevelopment within an overlay district or through some other zoning mechanism, and minor redevelopment under existing zoning (i.e., Brant Photography).

- Meet parcel-specific requirements of any funding or grants used to acquire land for park development (e.g., remove residences, associated structures, and docks; limit impervious surface to 15 percent; retain at least 14 slips for transient moorage).
- Provide comprehensive park improvements, entry plaza, and a trail system.
- Relocate the swim beach and playground toward the southeast.
- Provide *picnic facilities*.
- Daylight the *full length of the* stream through the park.
- Relocate and improve wetland at mouth of stream.
- Remove Pier 3 *and public pier at beach park.*
- *Remove the roof from Pier 2.*
- Provide moorage for approximately *40 long-term slips* and retain at least 14 transient slips.
- Install *new public pier* with viewing platform *(east edge of swimming beach).*
- Restore approximately *950 lf* of shoreline to more natural conditions.
- Use Whaling Building as historical/cultural maritime center.
- Use Ice House as harbormaster residence and storage or marina office.
- Provide approximately *4,000 sf community building*.
- Provide approximately *3,000 sf environmental education center.*
- Provide public parking (*approximately 106 spaces*) for park and marina uses, including a below-grade garage with access from 99th Avenue NE.
- *Replace on-street parking (approximately 10 spaces) along 99th Avenue NE.*

As with the No-Action Alternative, the area south of Lake Washington Boulevard between Meydenbauer Beach Park and 99th Avenue NE would be converted to park use. Additionally, the areas currently occupied by marina parking would become an extension of the waterfront park. A hillside park and entry plaza would replace the Bayvue Village Apartments and 100th Avenue SE south of Main Street.

Impacts of this alternative are summarized below for recreation demand, opportunities, and conformance with applicable policies.

Recreation Demand

Similar to the No-Action Alternative, Alternative 1 assumes incremental redevelopment of multi-family parcels within and in the vicinity of the study area. As described in Section 3.4 (*Land Use*), this alternative also assumes the conversion of the Bayvue Village Apartments to park use, and regulatory changes that would facilitate redevelopment of several residential parcels in the study area. According to the City of Bellevue analysis, this would result in an increase of approximately 125 to 200 additional dwelling units within two blocks of Meydenbauer Beach Park. As with the No-Action Alternative, recreation demand would be affected by commercial and residential redevelopment at the edge of downtown adjacent to the study area, resulting in an increase in nearby residents and workers. Recreation demand also would increase due to the construction of new residences and commercial structures with little associated open space.

No Action

Figure 1.3-1 Site Plan for No-Action Alternative

Alternative 1

Figure 1.3-2: Site Plan for Alternative 1

Alternative 2

Figure 1.3-3: Site Plan for Alternative 2

The proposed regulatory changes and redevelopment of the upland parcels are identical to Alternative 1. Provisions for landscaping and pedestrian improvements to connect the study area and downtown also are identical to Alternative 1.

As described for Alternative 1, Alternative 2 would close 100th Avenue SE and coordinate the redevelopment of approximately 2.65 acres of land under several ownerships, including one City-owned parcel, to improve pedestrian connections by developing a series of mid-block pathways and plazas and other spaces usable by the general public. The overlay district is intended to provide additional development capacity (60 units per acre) in the upper block area and the area south of Main Street, while maintaining existing height limits but allowing increased lot coverage and reduced setbacks. The goal is to improve right-of-way edge conditions (upper block) and achieve public spaces, building forms, and uses (south of Main Street) that complement and provide a transition to the park and connections from the park to Old Bellevue, Downtown Park, and downtown.

The primary park components unique to Alternative 2 are:

- Daylight the stream through the park ravine between Lake Washington Boulevard and the lake.
- Provide a street-level public plaza at the corner of Main Street and 100th Avenue SE.
- Remove Piers 2 and 3.
- Reconfigure Pier 1.
- Provide moorage for 25-35 long-term and at least 14 transient slips.
- Install a new public pier with elevated viewing platform and floating boardwalk.
- Restore approximately 800 lf of shoreline to more natural conditions.
- Provide an approximately 8,000 sf community building.
- Provide an approximately 3,000 sf café.
- Provide up to six vendor kiosks.
- Provide public parking (approximately 156 spaces) for park and marina uses.

Alternative 2A, a road open variant, is also considered in analyzing effects on certain elements of the environment (e.g., transportation, parks and recreation), but is only analyzed where the effects are sufficiently distinct from Alternative 2. Therefore, Alternative 2A is not considered in analyzing effects on most other elements.

1.4 SUMMARY OF IMPACTS

The environmental effects of the project alternatives are evaluated in Chapter 3. Table 1.4-1 (included at the end of Chapter 1) provides a summary of the impacts described and analyzed in Chapter 3. As analyzed in Chapter 3 and summarized in Table 1.4-1, implementation of the project alternatives would result in relatively minor adverse and some beneficial impacts in the study area; project implementation would result in no significant adverse impacts.

1.5 POLICIES AND REGULATORY AUTHORITY

The Meydenbauer Bay Park and Land Use Plan embodies the goals and policies expressed in the City of Bellevue Comprehensive Plan, the Parks & Open Space System Plan, and the 12

planning principles adopted by the City Council. Consistent with the 12 planning principles, especially number 8 (environmental stewardship), the City intends to incorporate environmentally sensitive measures in project-level design and construction where feasible. Such measures may include recognized green building techniques, natural drainage practices, native or drought-tolerant landscape materials, natural shoreline edge treatments, pervious surface materials, and/or similar measures.

The Bellevue Comprehensive Plan is a broad statement of community goals and policies that directs the orderly and coordinated physical development of the City. Many elements of the Comprehensive Plan provide policy direction for the Meydenbauer Bay Park and Land Use Plan. The Land Use Element of the Comprehensive Plan provides the framework for other Plan Elements that guide other aspects of land use. The first goal of the Land Use Element is to develop and maintain a land use pattern that: "*Protects natural systems and helps realize the vision of a 'City in a Park*.'" The Parks, Opens Space, and Recreation Element of the Comprehensive Plan includes park and open space acquisition policies that recognize the importance of Meydenbauer Beach Park. "*Meydenbauer Bay continues to be a major focus for increasing Bellevue's access to the waterfront.… The ultimate goal is to connect the expansion of these properties to the Downtown area, creating a significant citywide park and waterfront destination.*" The Shoreline Management and Program Element includes Goal 4: "*To increase public, physical, and visual access to and along the city's shoreline areas*."

While the Comprehensive Plan is updated every year, the focus remains constant (2008): well-maintained, livable neighborhoods; healthy environment; vibrant urban center; and strong, diverse local economy. The City will amend the Comprehensive Plan and the Bellevue Land Use Code (e.g., land use and shorelines regulations) as needed to implement the adopted Meydenbauer Bay Park and Land Use Plan.

The State Environmental Policy Act (SEPA) requires government decision-makers to consider environmental information, along with technical and economic information, when deciding whether to approve a proposal. SEPA provides the tools for government agencies to consider and mitigate for environmental impacts of proposals. The SEPA Rules, Chapter 197-11 of the Washington Administrative Code (WAC), include rules to interpret and implement the broad policies of SEPA.

As noted earlier, the purpose of this programmatic EIS is to describe the potential impacts that could be associated with implementing the Meydenbauer Bay Park and Land Use Plan. While this EIS evaluates a programmatic or non-project action, it is likely that implementing specific components of the Meydenbauer Bay Park and Land Use Plan in the future will trigger additional project-level environmental review under SEPA.

The Growth Management Act (GMA) provides a framework for land use planning in Washington's most populous cities and counties. Chapters 197-11-210 through 197-11-235 of the WAC describe the procedures for SEPA/GMA integration, which is designed to ensure that environmental analyses under SEPA can occur concurrently with and as an integral part of planning and decision making under GMA, as an integrated SEPA/GMA document.

Linking planning for Meydenbauer Beach Park and adjacent uplands with the environmental analysis can result in better-informed GMA planning decisions; avoid delays, duplication, and paperwork in project-level environmental analysis; and narrow the scope of environmental review and mitigation under SEPA at the future project level.

1.6 PHASED REVIEW

This EIS follows the format requirements for an integrated SEPA/GMA document, as described in WAC 197-11-235. The City is conducting a programmatic environmental review at the planning phase, which allows it to consistently analyze impacts and determine mitigation for the entire plan, rather than project by project. The City also conducted an expanded scoping process (WAC 197-11-410), as part of the public involvement process described above (Section 1.2, *Public Involvement)*. While many comments were received during scoping, the intent is not to address every comment in the EIS. In the case of a programmatic EIS, comments may be presented that concern potential project-specific impacts and that are beyond the level of analysis of a programmatic document. The purpose of scoping was to identify alternatives to be analyzed, to eliminate insignificant impacts from detailed study, and to narrow the focus of the EIS to potentially significant environmental issues. WAC 197-11-794 defines "significant" as "a reasonable likelihood of more than a moderate adverse impact on environmental quality. Significance involves context and intensity and does not lend itself to a formula or quantifiable test." The methods for assessing environmental impacts and significance vary by resource element and are described in that context in Chapter 3. Scoping also provided notice to the public and other agencies that an EIS is being prepared and initiated their involvement in the SEPA process.

This approach integrates the Meydenbauer Bay Park and Land Use Plan preparation and decision-making with the environmental review process, public participation, and interagency cooperation.

Table 1.4-1. Summary of Effects of the Project Alternatives.

Resource Area	No-Action Alternative	Alternative 1	Alternative 2
Earth	Minor short-term construction-related impacts on erosion susceptibility, slope stability, settlement, and groundwater. Minor long-term geologic hazards could occur related to steep slopes, landslide potential, and erosion hazards, as well as seismically induced liquefaction, ground shaking, ground rupture, tsunamis, and seiches. Potential for impacts from tsunamis and seiches greater than for the action alternatives. With BMP implementation, no significant unavoidable adverse earth-related impacts.	Similar to No-Action Alternative; construction-related impacts slightly greater than No-Action given the greater level of development proposed. With BMP implementation, no significant unavoidable adverse earth-related impacts.	Same as Alternative 1. With BMP implementation, no significant unavoidable adverse earth-related impacts.
Surface Water and Water Quality	Minor short-term construction-related impacts such as runoff turbidity and increased sediment. 228,000 sf of impervious surface area. No significant, unavoidable adverse impacts.	Construction-related impacts similar to No-Action Alternative. Long-term improvements in stormwater quality compared to No-Action because of opportunity for new treatment facilities; long-term net benefit to stormwater quality. 250,000 sf of impervious surface area. No significant, unavoidable adverse impacts.	Similar to Alternative 1. 327,000 sf of impervious surface area No significant, unavoidable adverse impacts.
Plants and Animals	Minor impacts on plants, animals, habitat, and threatened or endangered species. Construction activities would cause minor disturbances to wildlife breeding, foraging, or migrating behavior. Short-term impacts on fish associated with in-water work. Long-term beneficial effects in the form of general habitat improvements. Reduction to 46,000 sq ft of overwater structure, improving habitat for juvenile fish. No significant unavoidable adverse impacts.	Similar short-term construction related impacts as No-Action – slightly greater given level of development. Short-term impacts on fish associated with in-water work. Long-term beneficial impacts in the form of general habitat improvements greater than No-Action. Reduction to 22,000-23,000 sq ft of overwater structure, providing best improvements to habitat for juvenile fish. Beneficial habitat effects associated with shoreline (950 lf), stream (1,300 lf), and wetland restoration – greatest ecological benefit on plants and animals of the project alternatives. No significant unavoidable adverse impacts.	Similar short-term and long-term effects as Alternative 1. 800 lf of shoreline and 360 lf of stream restoration. Reduction to 28,000-29,000 sq ft of overwater structure. No significant unavoidable adverse impacts.
Land Use	Minor short term, construction-related activities could temporarily displace visitors to the park and nearby neighborhoods. Long-term, redevelopment would increase the intensity of use within both the upland parcels and the park. No significant unavoidable adverse land use impacts.	Similar short-term construction impacts as No-Action; slightly greater given the level of development. Intensity of use greater than No-Action. Greater long-term beneficial impacts than No-Action in the form of addressing policy goals and objectives of the Comprehensive Plan and 12 planning principles. No significant unavoidable adverse land use impacts.	Similar short-term construction and long-term impacts as Alternative 1; slightly greater given the level of development. Same long-term beneficial impacts as Alternative 1. No significant unavoidable adverse land use impacts.
Shorelines	Short-term construction impacts in the form of water turbidity, shoreline erosion, and reduced water quality. With implementation of appropriate measures and BMPs, no significant unavoidable adverse shoreline impacts.	Short-term construction impacts similar to No-Action, but slightly greater given the level of development. Long-term improved marina infrastructure compared to No-Action, and improved overall water-related	Similar to Alternative 1. 800 lf of shoreline restoration. With implementation of appropriate mitigation and BMPs, no significant unavoidable

Resource Area	No-Action Alternative	Alternative 1	Alternative 2
		recreational opportunities. Reduction of permanent moorage capacity at the marina would have minor impacts on navigation compared to No-Action. Shoreline habitat improvements, including 950 lf of shoreline restoration. Greater long-term benefits than No-Action. With implementation of appropriate measures and BMPs, no significant unavoidable adverse shoreline impacts.	adverse shoreline impacts.
Parks and Recreation	Minor short term, construction-related activities could temporarily displace visitors to the park. Long-term beneficial impacts. Approximately 87 long-term moorage slips and at least 14 transient slips; no people-propelled vessel (PPV) launch or moorage. No significant unavoidable adverse impacts.]	Similar short-term construction impacts as No-Action; slightly greater given the level of development. Long-term beneficial effects consistent with the City's goals and policies guiding park development and improved transitions and connections between the park and surrounding neighborhoods. Long-term beneficial impacts, including community building and environmental education center. Approximately 40 long-term and 14 transient slips; PPV launch capability and moorage for 15 PPVs. No significant unavoidable adverse impacts.	Similar short-term (adverse) and long-term (beneficial) effects as Alternative 1. Alternative 2 would provide the most intensity of park redevelopment and opportunities for serving broader community. Long-term beneficial impacts, including boardwalk, café, and community building. Approximately 25-35 long-term moorage slips and 14 transient slips; PPV launch capability and moorage for 10 PPVs, No significant unavoidable adverse impacts.
Visual Quality	Minor visual improvements north of 99th Avenue NE. No significant unavoidable adverse impacts.	Creation of viewing opportunities and removal of built structures that currently obstruct views. Increased access along shoreline and associated viewing opportunities. Relative to No-Action, considerable improvements to the aesthetic quality of the shoreline and the marina. No significant unavoidable adverse impacts.	Similar to Alternative 1 but would create more locations for view opportunities both north of 100th Avenue SE and north of 99th Avenue NE due to increased ease of circulation and accessibility. Elevated viewing platform would be visible from neighboring residences. No significant unavoidable adverse impacts.
Cultural and Historic Resources	No significant unavoidable adverse impacts on cultural or historic resources.	Compared to No-Action, minor beneficial impacts in the form of preserving the existing Whaling Building and increasing the opportunities for historic interpretation of the unique history of the site. No significant unavoidable adverse impacts.	Similar to Alternative 1, but with slightly different interpretation and education opportunities. No significant unavoidable adverse impacts.
Transportation	Minor impacts on transportation facilities and services. Short-term construction impacts related to temporary service and access interruptions, including for police, fire, and emergency services. In the long term, one intersection (100th Ave NE at NE 1st Street) would operate at LOS F. Steady growth of background traffic anticipated. Substantial improvements in pedestrian and bicycle facilities, access, and safety. No significant unavoidable adverse impacts.	Minor impacts on transportation facilities and services. Short-term construction impacts slightly greater than No-Action given the level of additional development. Closure of 100th Avenue SE. In the long term, slight additional impacts relative to No-Action, including moderate increase in delay at Main Street/101st Avenue SE, decreasing level of service from LOS C to LOS E. Intersection at 100th Ave NE at NE 1st Street would operate at LOS E (LOS F	Similar to Alternative 1. No significant unavoidable adverse impacts.

Resource Area	No-Action Alternative	Alternative 1	Alternative 2
		under Alternative 1A). Substantial improvements in pedestrian and bicycle facilities, access, and safety. Potential for conflicts between vehicles and pedestrians/cyclists would be greater if 100th Avenue SE remains open to traffic (under Alternative 1A). No significant unavoidable adverse impacts.	
Noise	Short-term construction would temporarily increase noise levels in the study area. Long-term impacts would include elevated noise levels associated with traffic, visitation, and increased recreation. No significant unavoidable adverse impacts.	Impacts similar to No-Action but slightly greater given the additional level of development, as well as increased visitation, commercial activity, traffic, and recreation use. No significant unavoidable adverse impacts.	Same as Alternative 1. No significant unavoidable adverse impacts.
Air Quality	Short-term construction impacts would temporarily increase air pollution levels in the study area. In the long term, air pollutant emissions would be created by additional vehicles related to increased visitation and residents but much less than applicable ambient air quality standards. No significant unavoidable adverse impacts.	Short-term construction and long-term operation impacts similar to No-Action but slightly greater given the additional level of development, as well as increased visitation. No significant unavoidable adverse impacts.	Same as Alternative 1. No significant unavoidable adverse impacts.
Public Services	Short-term construction impacts could include temporary service interruptions to existing utilities and temporarily increase police, fire, and medical emergency service response times. No long-term impacts anticipated. No significant unavoidable adverse impacts.	Short-term construction impacts similar to No-Action, but slightly more pronounced given level of proposed development. No significant unavoidable adverse impacts.	Same as Alternative 1. No significant unavoidable adverse impacts.

Source: Developed by EDAW 2009, based on analysis presented in Chapter 3.

CHAPTER 2 – DESCRIPTION OF ALTERNATIVES

2.1 DEVELOPMENT OF ALTERNATIVES

SEPA requires consideration of a no-action alternative, and "reasonable alternatives." A reasonable alternative under SEPA (WAC 197-11-786, 197-11-440[5]) is an action that could feasibly attain or approximate a proposal's objective, but at a lower environmental cost or decreased level of environmental degradation. Reasonable alternatives may be limited to those that the City has authority to control either directly or indirectly through the requirement of mitigation. In addition, the proponent may, but is not required to, identify and consider a preferred alternative.

The City of Bellevue is evaluating three alternatives, a No-Action Alternative and two action alternatives (Alternatives 1 and 2), for future development of Meydenbauer Beach Park and nearby upland properties within the study area. The action alternatives were developed and refined through a robust planning process that is being integrated with the environmental review process.

2.1.1 Planning Process

The City of Bellevue has long had a vision of connecting the Meydenbauer Bay waterfront to Downtown Park to create a signature park and waterfront destination. With the acquisition of its first properties in the 1950s, the City first developed the Meydenbauer Beach Park. In 1987 the City's Park, Recreation, and Open Space Plan identified acquisition of the Meydenbauer Bay waterfront as a major focus to provide unequaled waterfront amenities and connect the waterfront to Downtown Park and the downtown. Since the early 1990s, Bellevue has proceeded to progressively acquire land along Meydenbauer Bay to expand Meydenbauer Beach Park and provide an important recreational opportunity for the citizens of Bellevue. The City Council recognized the need to plan for the ultimate goal of achieving a connection of this key waterfront area to the downtown area and enhancing the surrounding area. To maintain the status quo in the area while allowing the City to conduct the necessary planning efforts to implement this long range vision, the City Council enacted a moratorium in January 2007 that prohibited the City from accepting development permit applications on 13 properties within the study area. The City imposed the moratorium to avoid premature redevelopment in the study area while it refined its vision for the waterfront and its understanding of the possibilities and constraints of enhancing the land uses and livability of the area between Meydenbauer Bay and Downtown Park. The moratorium affected 13 properties totaling approximately 7 acres; it allowed the City's planning work to proceed, while preventing redevelopment that could have otherwise hampered the civic vision and planning effort. The City launched a community involvement process for waterfront planning that resulted in the concepts being evaluated in this Draft EIS. The moratorium was lifted/expired in January 2008.

The City initiated its planning process in early 2007, which resulted in a Preliminary Preferred Land Use Plan (PPLUP) for land uses and development intensity in the upper block and south of Main Street areas (Sasaki 2008) of the study area. The PPLUP illustrates potential building masses, siting, relationships, and concepts that provide pedestrian connections between the new waterfront park and upland areas, as well as physical and interactive spaces and amenities that reinforce the pedestrian experience and the connection of the waterfront to nearby upland areas.

The PPLUP envisions the closure of 100th Avenue SE, and coordinated redevelopment of approximately 2.65 acres of land under several ownerships, including one City-owned parcel; the redevelopment was designed to improve pedestrian connections and environments by developing a series of mid-bock pathways and plazas. The PPLUP identified several issues that are being evaluated as part of the ongoing planning process.

Land use alternatives considered as part of this earlier process assessed the economic feasibility of redevelopment through market-based incentives of upland areas (within the study area), identified as the upper block and the area south of Main Street. The market analysis concluded that considerable additional development capacity would be required on the upper block to provide sufficient economic incentive for current owners to redevelop the property rather than converting it to condominiums (EPS 2008). As a result of this analysis, 100 percent market-based incentives to ensure redevelopment in the upper block were not pursued further. However, the City decided to pursue more modest policy and regulatory changes to provide some degree of incentive (other than increasing building height or allowing new uses) that could improve the pedestrian environment along the edges of the upper block. These changes are reflected in the upland redevelopment portions of Alternatives 1 and 2.

When the City continued its planning process with a focus on the new waterfront park, it also focused on reintegrating the new park and uplands, with greater attention to the edge condition and relationship of these two important components of the Meydenbauer Bay Park and Land Use Plan. This integration of the park and upland parcels acknowledges the challenges and opportunities of the grade difference of approximately 74 feet between the shoreline and the intersection of Main Street and 100th Avenue NE and approximately 71 feet across the western portion of the park. This grade change presents an opportunity to activate the corridor edge, provide vertical circulation, capitalize on views, separate public and private uses, and locate some uses and structures away from the shoreline. The two action alternatives reflect these conditions and opportunities, and also acknowledge the important interrelationship between the waterfront park and the surrounding upland neighborhoods.

2.1.2 Programmatic Environmental Analysis

This is a programmatic, or "nonproject," EIS, as described in WAC 197-11-442. This type of analysis evaluates the impacts of adopting planning documents and other agency actions that do not involve constructing specific projects. Since the Meydenbauer Bay Park and Land Use Plan EIS is programmatic, the environmental analysis is conducted at a broad level intended to disclose potential effects and to guide redevelopment of the park and adjacent upland parcels. This analysis is not intended to document impacts at the project level; individual development projects may be required to undergo project-level SEPA analysis after they are formally proposed. In addition, SEPA is not intended to explore fiscal impacts or serve as a cost-benefit analysis.

Because of the programmatic nature of this document, most elements of the environment are evaluated qualitatively. However, transportation effects are evaluated quantitatively using computer modeling to assess potential future impacts. This approach was chosen to provide a more objective basis for comparing the project alternatives. Depending on the magnitude of future projects, project-level environmental review could range from a SEPA Checklist and Determination of Nonsignificance (DNS), where impacts are less than significant, to a project-

level EIS (where significant unmitigated adverse impacts are likely to occur). In addition, all projects will be required to comply with applicable environmental regulations and obtain the necessary permits from the City of Bellevue and other agencies with jurisdiction. Conditions placed upon these permits, as well as mitigation measures identified through the SEPA process, will ensure that potential impacts are avoided, minimized, and/or mitigated to the greatest possible extent.

The City of Bellevue is evaluating three alternatives in this programmatic EIS, a No-Action Alternative and two action alternatives, for future development of Meydenbauer Beach Park and adjacent City-owned parcels, and for nearby upland properties within the study area. Under all alternatives, both public and private properties within the study area would experience some level of redevelopment. To help organize the description of the upland parcels referred to below, they are grouped below by "quadrants" that are centered on the intersection of Main Street at 100th Avenue (Figure 2.1-1).

2.2 NO-ACTION ALTERNATIVE

Many elements of the No-Action Alternative are common to all alternatives. Key elements of this alternative are the redevelopment of commercial parcels at the northeast and southeast corners of Main Street and 100th Avenue under existing zoning, and expansion of Meydenbauer Beach Park south to 99th Avenue NE. Under the No-Action Alternative, the study area would experience some level of redevelopment. Existing zoning designations are graduated to transition where multi-family zoning abuts single-family zoning across 99th Avenue NE. The Chevron station, which is a non-conforming use under the existing Land Use Code, is assumed to redevelop in accordance with the Land Use Code provisions. The most likely scenario for redevelopment of this site is several floors of residential over ground-floor commercial/retail and is assumed as the No-Action Alternative. However, other options such as a hotel or office building are possible under existing Land Use Code provisions. The Brant property on the northeast corner of Main Street and 100th Avenue NE likely would be similarly redeveloped at a smaller scale, commensurate with the parcel size.

The No-Action Alternative includes the expansion of park use between Lake Washington Boulevard NE and the Lake Washington shoreline, to the extent necessary to fulfill obligations required by the funding sources used to purchase many of the City-owned properties. Park development would include the removal of residential structures and the addition of limited park amenities, such as a shoreline pathway linking the existing beach park to 99th Avenue NE. The park would contain modest amenities and be left in a relatively undeveloped state, similar to the level of amenities currently present in Meydenbauer Beach Park. This type of development would provide passive recreational opportunities for neighborhood residents and people who work nearby.

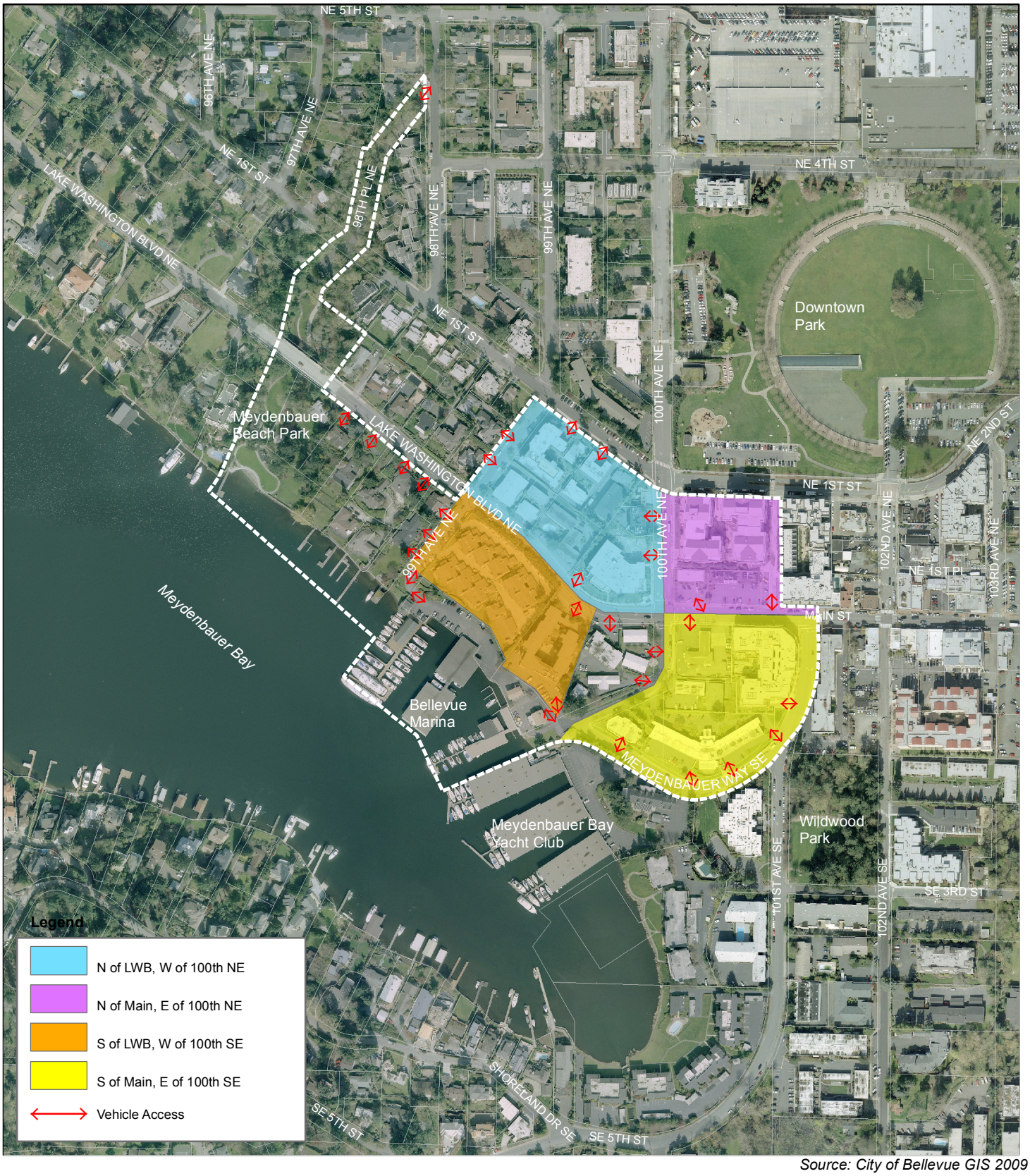
In terms of land use compatibility, the conversion to park use would provide some advantages over the existing single-family residential use. The existing Meydenbauer Beach Park wraps along the waterfront, directly bordering three of the single-family parcels. The City-owned Bellevue Marina faces the parcels across 99th Avenue NE. Thus, the current single-family use is sandwiched between seasonally intense public uses. Extending the park use from Meydenbauer Beach Park to 99th Avenue NE would create a single public-use zone from Lake Washington Boulevard NE to the Lake Washington shoreline. The public moorage (i.e., Bellevue Marina and

the Yacht Basin) would retain a mix that includes at least 14 transient moorage slips, with the remainder available for longer term moorage use. This alternative would do little to address various City of Bellevue policy goals regarding public shoreline access, appropriate neighborhood transitions, or improving pedestrian and visual connectivity between downtown and the waterfront. Components of the No-Action Alternative include (also see Figure 1.3-1):

- Maintain current Comprehensive Plan policies and zoning regulations.
- Retain most existing upland development; some redevelopment would occur under existing zoning.
- Upland parcels – north of Lake Washington Boulevard, west of 100th Avenue NE
  - 115 dwelling units
  - 25,785 net square feet (nsf) commercial/retail
- Upland parcels – north of Main Street, east of 100th Avenue NE
  - 306 to 323 dwelling units
  - 12,500 nsf commercial/retail
- Upland parcels – south of Main Street, east of 100th Avenue SE
  - 183 to 231 dwelling units
  - 19,833 nsf commercial/retail
- Upland parcels – south of Lake Washington Boulevard, west of 100th Avenue SE
  - 57 dwelling units
  - No commercial/retail
- Park parcels
  - Meet parcel-specific requirements of any funding or grants used to acquire land for park development (e.g., remove residences, associated structures, and piers; limit impervious surface to 15 percent; retain at least 14 slips for transient moorage)
  - Provide limited park improvements (e.g., provide public access to the shoreline and construct a shoreline pathway between 99th Avenue NE and the beach park)
  - Increase park acreage from approximately 3 acres to approximately 8.5 acres
  - Retain developed Meydenbauer Beach Park including the public pier
  - Retain three moorage piers (two covered) with approximately 87 usable long-term and at least 14 transient slips
  - Reduction in overwater coverage to 46,000 sf
  - Provide approximately 70 parking spaces for park use and marina uses

2.3 ALTERNATIVE 1

While many elements are common to all three alternatives, Alternatives 1 and 2 place greater emphasis on providing shoreline access and public facilities associated with a waterfront park, and on strengthening connections between the waterfront and downtown through upland redevelopment and enhanced street landscaping and pedestrian amenities. Under Alternative 1, the policies and land use designations of the Comprehensive Plan would be revised to accommodate the desired redevelopment of specific residential and commercial properties. Several parcels within the study area would be subject to these new standards, which would encourage the development of denser, mixed-use structures, and provide a transition between downtown and the expanded park. Alternative 1 would increase the allowable development intensity for two sections of the study area.



Source: City of Bellevue GIS 2009

0 135 270 540 Feet

Figure 2.1-1: Upland (Non-Park) Parcel Quadrants and Existing Vehicular Access

For the blocks north of Lake Washington Boulevard and west of 100th Avenue NE, the average unit count would increase by approximately 38 units (from approximately 115 units in the No-Action Alternative to approximately 153 units in Alternative 1). For the blocks south of Main Street and east of 100th Avenue SE, the average unit count would increase by approximately 55 units (from a range of 183 to 231 units in the No-Action Alternative to 238 to 286 units in Alternative 1).

Alternative 1 would convert the Bayvue West parcel (i.e., Bayvue Village Apartments, west of 100th Avenue NE) from apartments to public park use. In this alternative, 100th Avenue SE would be closed south of Main Street. This right-of-way would be combined with the Bayvue West parcel to create a hillside entry plaza with stairs, plantings, and a water feature.

Vehicular access to the adjacent Vue Condominium and 10000 Meydenbauer Condominium would continue to be provided by Meydenbauer Way SE. Pedestrian access to 10000 Meydenbauer Condominium would continue to be provided by pedestrian paths within the redesigned 100th Avenue SE/SE Bellevue Place right-of-way. The addition of this entry plaza would enhance the public character of the hillside between Main Street and Bellevue Marina. Within the park area west of 99th Avenue NE, a community building and environmental education center would be added. The existing access road and parking for Meydenbauer Beach Park would be removed, and the stream (currently piped underground) would be daylighted for the extent of the park ravine (approximately 1,300 lf), with a restored wetland at its mouth. Approximately 950 lf of shoreline armor (i.e., rock riprap and/or timber bulkheads) would be replaced by more natural shoreline conditions, characterized by gentler slopes and native vegetation planted at the top of the bank. The addition of a 4,000-sf community building and a 3,000-sf environmental education center would add year-round activity. Additional parking would be provided and accessed from 99th Avenue NE.

Compared to the No-Action Alternative, the addition of a hillside entry plaza in Alternative 1 would address several policy goals intended to guide development of the study area. This entry plaza would enhance the visual and pedestrian connection from Downtown Park to the Lake Washington waterfront. It also would provide an open space element that connects Meydenbauer Beach Park to Main Street and downtown, thus helping to create a waterfront park of civic significance. Components of Alternative 1 include (also see Figure 1.3-2):

- Revise Comprehensive Plan policies and zoning regulations to allow 60 dwelling units per acre or equivalent Floor Area Ratio (FAR) in the block north of Lake Washington Boulevard, west of 100th Avenue NE, and in the block south of Main Street, east of 100th Avenue SE, and to allow limited additional retail opportunity south of Main Street.
- Redevelopment within a new land use district or overlay district; minor redevelopment under existing zoning.
- Provide consistent street landscaping and pedestrian improvements to connect the park and downtown.
- Upland parcels – north of Lake Washington Boulevard, west of 100th Avenue NE
    - 153 dwelling units
    - 25,785 nsf commercial retail
- Upland parcels – north of Main Street, east of 100th Avenue NE
    - 306 to 323 dwelling units
    - 12,500 nsf commercial/retail

- Upland parcels – south of Main Street, east of 100th Avenue SE
  - 238 to 286 dwelling units
  - 25,583 nsf commercial/retail
- Upland parcels – south of Lake Washington Boulevard, west of 100th Avenue SE
  - 57 dwelling units
  - No commercial/retail
- Park parcels
  - Meet parcel-specific requirements of any funding or grants used to acquire land for park development (e.g., remove residences, associated structures, and piers; limit impervious surface to 15 percent; retain at least 14 slips for transient moorage)
  - Provide comprehensive park improvements, entry plaza, and trail system
  - Increase park acreage from approximately 3 acres to approximately 9.5 acres
  - Relocate the swimming beach and playground
  - Provide picnic facilities
  - Daylight the full length of the stream through the park
  - Relocate and improve wetland at mouth of stream
  - Remove Pier 3 and the public pier at the beach park
  - Remove the roof from Pier 2
  - Reduction in overwater coverage to 22,000 to 23,000 sf
  - Provide moorage for approximately 40 long-term and at least 14 transient slips
  - Install a new public pier with viewing platform (east edge of swimming beach)
  - Restore approximately 950 lf of shoreline to more natural conditions
  - Use the American Pacific Whaling Fleet Building (Whaling Building) as an historical/cultural maritime center
  - Use the Ice House as the harbormaster residence and storage or marina office
  - Provide an approximately 4,000 sf community building
  - Provide an approximately 3,000 sf environmental education center
  - Provide public parking (approximately 106 spaces) for park and marina uses, including a below-grade garage with access from 99th Avenue NE.

2.3.1 Alternative 1A – Road Open Variant

Alternative 1A is the same as Alternative 1, except that 100th Avenue SE would remain open between Main Street and Meydenbauer Way SE. This would allow vehicular access to the redeveloped properties along the east side of 100th Avenue SE and preserve access options for existing residential structures and the Bellevue Marina. In this EIS, Alternative 1A is only analyzed where the effects are sufficiently distinct from Alternative 1.

2.4 ALTERNATIVE 2

Alternative 2 is similar to Alternative 1 in striving to address policy goals to create a waterfront district with high-quality civic open space and appropriate adjacent development. Alternatives 1 and 2 are identical in terms of the proposed regulatory change and redevelopment of upland parcels, as described above.

Alternatives 1 and 2 differ primarily in the program and design of open space and recreational elements. As in both the No-Action Alternative and Alternative 1, the park area between Lake

Washington Boulevard and the shoreline would be expanded southeastward to 99th Avenue NE. As in Alternative 1, the Bayvue West parcel would be converted from apartments to a hillside entry plaza for public open space use. While there are many differences between Alternatives 1 and 2 in terms of park design and shoreline treatment, the primary differences are the intensity of uses programmed for the hillside entry plaza, and the retention of the existing parking lot and access road for Meydenbauer Beach Park. As a result, only a portion of the creek (approximately 360 lf) would be daylighted through the park.

As in Alternative 1, the entry plaza would provide a public connection from Main Street to the shoreline, but in a more structured architectural manner. In Alternative 2, a 3,000 sf café would be located in a structure integrated into the hillside entry plaza south of Main Street along the alignment of 100th Avenue SE. The addition of more overtly architectural elements and the provision for indoor functions would reflect a more intense year-round public use. Components of Alternative 2 include (also see Figure 1.3-3):

- Revise Comprehensive Plan policies and zoning regulations to allow 60 dwelling units per acre or equivalent Floor Area Ratio (FAR) in the block north of Lake Washington Boulevard, west of 100th Avenue NE, and in the block south of Main Street, east of 100th Avenue SE, and to allow limited additional retail opportunity south of Main Street.
- Redevelopment within a new land use district or overlay district; minor redevelopment under existing zoning.
- Provide consistent street landscaping and pedestrian improvements to connect the park and downtown.
- Upland parcels – north of Lake Washington Boulevard, west of 100th Avenue NE
    - 153 dwelling units
    - 25,785 nsf commercial retail
- Upland parcels – north of Main Street, east of 100th Avenue NE
    - 306 to 323 dwelling units
    - 12,500 nsf commercial/retail
- Upland parcels – south of Main Street, east of 100th Avenue SE
    - 238 to 286 dwelling units
    - 25,583 nsf commercial/retail
- Upland parcels – south of Lake Washington Boulevard, west of 100th Avenue SE
    - 57 dwelling units
    - No commercial/retail
- Park Parcels
    - Meet parcel-specific requirements of any funding or grants used to acquire land for park development (e.g., remove residences, associated structures, and piers; limit impervious surface to 15 percent; retain at least 14 slips for transient moorage)
    - Provide comprehensive park improvements, entry plaza, and trail system with floating boardwalk
    - Increase park acreage from approximately 3 acres to approximately 9.5 acres
    - Relocate swimming beach
    - Daylight stream through park between Lake Washington Boulevard and lake
    - Relocate and improve wetland at mouth of stream
    - Remove Piers 2 and 3
    - Reduction in overwater coverage to 28,000 to 29,000 sf

- Provide moorage for approximately 25-35 long-term and at least 14 transient slips
- Install new public pier with elevated viewing platform and floating boardwalk
- Restore approximately 800 lf of shoreline to more natural conditions
- Use the Whaling Building as historical/cultural maritime center
- Use Ice House as harbormaster residence and storage or marina office
- Provide approximately 8,000 sf community building
- Provide approximately 3,000 sf café
- Provide up to 6 vendor kiosks
- Provide public parking (approximately 156 spaces) to park and marina uses, including two below-grade garages, one with access from 99th Avenue NE, and the other located toward the eastern end of the park.

2.4.1 Alternative 2A – Road Open Variant

Alternative 2A is the same as Alternative 2, except that 100th Avenue SE would remain open between Main Street and Meydenbauer Way SE. This would allow vehicular access to the redeveloped properties along the east side of 100th Avenue SE and preserve access options for existing residential structures and the Bellevue Marina. In this EIS, Alternative 2A is only analyzed where the effects are sufficiently distinct from Alternative 2. The effects of the two road open variants, 1A and 2A, are anticipated to be similar.

2.5 COMPARISON OF ALTERNATIVES

Table 2.5-1 provides a detailed side-by-side comparison of the three project alternatives for most components of the Meydenbauer Bay Park and Land Use Plan. As the table shows, the extent of upland redevelopment is the same under Alternative 1 and 2. Also see Figures 1.3-1, 1.3-2, and 1.3-3.

Table 2.5-1. Comparison of the Project Alternatives.

Component	No-Action Alternative	Alternative 1	Alternative 2
Comprehensive Plan and Zoning	Maintain current policies and regulations	Revise policies and regulations (in the Comprehensive Plan and Land Use Code) to allow residential densities of 60 units per acre or equivalent FAR in some upland areas, and to allow limited additional retail opportunity south of Main Street	Revise policies and regulations (in the Comprehensive Plan and Land Use Code) to allow residential densities of 60 units per acre or equivalent FAR in some upland areas, and to allow limited additional retail opportunity south of Main Street
Upland Parcels			
Upland redevelopment	Minor redevelopment under existing zoning	Redevelopment within new land use district or overlay district; minor redevelopment under existing zoning	Redevelopment within new land use district or overlay district; minor redevelopment under existing zoning
Street landscaping and pedestrian improvements to connect park and downtown	No new street landscaping or pedestrian improvements	Provide consistent street landscaping and pedestrian improvements to connect park and downtown	Provide consistent street landscaping and pedestrian improvements to connect park and downtown

Table 2.5-1. Comparison of the Project Alternatives.

Component	No-Action Alternative	Alternative 1	Alternative 2
North of Lake Washington Boulevard, west of 100th Avenue NE	115 dwelling units 25,785 nsf commercial/retail	153 dwelling units 25,785 nsf commercial/retail	153 dwelling units 25,785 nsf commercial/retail
North of Main Street, east of 100th Avenue NE	306-323 dwelling units 12,500 nsf commercial/retail	306-323 dwelling units 12,500 nsf commercial/retail	306-323 dwelling units 12,500 nsf commercial/retail
South of Main Street, east of 100th Avenue SE	183-231 dwelling units 19,833 nsf commercial/retail	238-286 dwelling units 25,583 nsf commercial/retail	238-286 dwelling units 25,583 nsf commercial/retail
South of Lake Washington Boulevard, west of 100th Avenue SE	57 dwelling units No commercial/retail	57 dwelling units No commercial/retail	57 dwelling units No commercial/retail
Park Parcels			
Acquisition funding or grants	Meet all requirements (e.g., remove residences, associated structures and docks; limit impervious surface to 15 percent; retain at least 14 transient slips)	Meet all requirements (e.g., remove residences, associated structures and docks; limit impervious surface to 15 percent; retain at least 14 transient slips)	Meet all requirements (e.g., remove residences, associated structures and docks; limit impervious surface to 15 percent; retain at least 14 transient slips)
General park improvements	Limited park improvements on approximately 8.5 acres	Comprehensive park improvements on approximately 9.5 acres	Comprehensive park improvements on approximately 9.5 acres
Trails and paths	Limited trails; new shoreline path between 99th Avenue NE and beach park	Comprehensive trail system and entry plaza	Comprehensive trail system, entry plaza, and floating boardwalk
Swimming beach	Retain swimming beach	Relocate swimming beach	Relocate swimming beach
Playground	Retain playground	Relocate playground	No playground
Picnic facilities	No picnic facilities	Provide picnic facilities	No picnic facilities
Stream	Retain stream in culvert through park	Daylight full length of stream through park (approximately 1,300 lf)	Daylight stream between Lake Washington Boulevard and lake (approximately 360 lf)
Wetland	Retain degraded wetland	Relocate improved wetland to mouth of stream at lake	Relocate improved wetland to mouth of stream at lake
Piers	Retain public pier at beach park; Retain moorage Piers 1, 2, and 3	Remove public pier at beach park; Provide new public pier with viewing platform east of swim beach; Remove moorage Pier 3; Remove roof from Pier 2	Retain public pier at beach park; Provide new public pier with elevated viewing platform and floating boardwalk; Remove moorage Piers 2 and 3
Overwater Coverage	46,000 sf	22,000 to 23,000 sf	28,000 to 29,000 sf
Moorage	Provide approx. 87 long-term and retain at least 14 transient slips	Provide approx. 40 long-term and retain at least 14 transient slips	Provide 25-35 long-term and retain at least 14 transient slips
People propelled vessel (PPV) launch and storage	No PPV launch or moorage	Provide PPV launch and moorage for 15 PPVs on east side of new public pier	Provide PPV launch, moorage and storage for 10 PPVs at new public pier

Table 2.5-1. Comparison of the Project Alternatives.

Component	No-Action Alternative	Alternative 1	Alternative 2
Shoreline armoring	Retain existing shoreline armoring	Restore approx. 950 lf of shoreline to more natural conditions	Restore approx. 800 lf of shoreline to more natural conditions
Whaling Building	Retain use as storage/marina support	Renovate as historical/ cultural maritime center	Renovate as historical/ cultural maritime center
Ice House	Retain harbormaster residence above; remodel as storage or marina office below	Retain harbormaster residence above; remodel as storage or marina office below	Retains harbormaster residence above; remodels as storage or marina office below
Community Building	No community building	Provide approx. 4,000 sf community building	Provide approx. 8,000 sf community building
Education Center	No education center	Provide approx. 3,000 sf education center	No education center
Café	No café	No café	Provide 3,000 sf café
Vendor kiosks	No vendor kiosks	No vendor kiosks	Provides up to 6 vendor kiosks
Restrooms	Retain public restrooms at beach park; allow public access to single ADA restroom at Whaling Building	Remove beach park restrooms; provide new restrooms west of 99th Avenue NE; allow public access to single ADA restroom in Whaling Building; provide restrooms in environmental education center and community building	Remove beach park restrooms; provide new restrooms west of 99th Avenue NE; allow public access to single ADA restroom in Whaling Building and community building
Park parking	Provide approx. 70 parking spaces for park use (28 spaces existing parking in ravine, 6 spaces at marina, 36 spaces in new surface parking area)	Provide approx. 106 parking spaces for park use (pull out along Lake Washington Boulevard, marina, one underground garage)	Provide approx. 156 parking spaces for park use (pull out along Lake Washington Boulevard, marina, two underground garages, retain existing parking in ravine)
Adjacent on-street parking along 99th Avenue NE	Retain approx. 10 spaces along 99th Avenue NE	Replace approx. 10 spaces along 99th Avenue NE	No on-street parking along 99th Avenue NE

Source: Provided by the City of Bellevue 2009; EDAW 2009.

2.6 ALTERNATIVES ELIMINATED

The City evaluated various incentives and regulatory measures that would achieve the objectives of the Meydenbauer Bay Park and Land Use Plan. As summarized by City staff (see Section 1.1), these include enhancing public access to Meydenbauer Bay, improving physical and visual connections between downtown and Meydenbauer Bay, redeveloping upland and park parcels that reflect the waterfront and complements the park, and integrating the park and adjacent neighborhoods. The City focused its analysis on alternatives that would advance the objectives of the Meydenbauer Park and Land Use Plan. During the course of the planning process, which began in 2007, the City considered various alternatives and approaches for both the upland and park parcels that were not carried forward for full analysis in this EIS, largely because they did not meet the defined objectives. In some cases, components of these alternatives were integrated

into the three project alternatives developed and analyzed in the EIS. As part of the planning process, the City also considered suggestions for addressing traffic flow in the study area. These alternatives are summarized below.

2.6.1 Alternatives Considered – Upland Parcels

The City and Steering Committee explored several alternative approaches to redeveloping the upland parcels that included:

- **Market-based incentives (allow 90 dwelling units per acre [du/a] or comparable Floor Area Ratio [FAR])** – Early land use alternatives assessed the economic feasibility of redevelopment of upland areas (within the study area), identified as the upper block and the area south of Main Street, through market-based incentives. The market analysis concluded that considerable additional development capacity (90 du/a or comparable FAR) would be required on the upper block to provide sufficient economic incentive to ensure that owners would redevelop the property rather than converting it to condominiums (EPS 2008). As a result of this analysis, and the lack of overall support for this level of redevelopment, 100 percent market-based incentives to ensure redevelopment in the upper block were not pursued further.

- **Policy and regulatory changes (allow 45 du/a or comparable FAR)** – In response to comments received during the initial planning process, the City also evaluated redesignating some or all of the upland parcels in the study area to allow residential development at a density of 45 du/a (or comparable FAR). However, this approach was eliminated because the lower density did not provide sufficient financial incentive to redevelop the property and therefore did not achieve the proposal objective of providing connectivity between the upland neighborhoods and the waterfront through market-based incentives.

- **Policy and regulatory changes (allow 60 du/a or comparable FAR)** – Ultimately, it was determined that 60 du/a was the minimum density needed to facilitate, although not necessarily ensure, redevelopment. This could be accommodated through establishing a new overlay zone, new zoning district, or similar zoning mechanism. Alternatives 1 and 2 both propose this density increase, and a zoning mechanism by which to accomplish it. The zoning mechanism would allow increased lot coverage and reduced setbacks, while maintaining existing height limits. The City concluded that this more modest policy and regulatory approach would provide some degree of incentive (other than increasing building height or allowing new uses) that could improve the pedestrian environment along the edges of the of the upper block. *These changes are reflected in the upland redevelopment portions of Alternatives 1 and 2.*

2.6.2 Alternatives Considered – Park Parcels

The City also considered various approaches to redeveloping and integrating the park parcels. These included approaches that would "bookend" the intensity of development and degree of environmental effect. *Various aspects of these approaches are reflected in the No-Action Alternative and in the two action alternatives*.

As the park planning progressed, the City next developed three park alternatives for consideration, referred to as the "educational emphasis," "shoreline emphasis," and "civic emphasis." In general, each of these alternatives reflected a design focus or theme. *Ultimately, through workshops with the Steering Committee and the public, the education emphasis became Alternative 1, and the shoreline and civic alternatives merged to become Alternative 2.* The City determined that these two action alternatives provide an appropriate range of reasonable alternatives for evaluating park development.

2.6.3 Alternatives Considered – Transportation Options

Several other possible transportation improvements were also considered. These included the possibility of a roundabout at Main Street and 101st Avenue SE in lieu of a stop-controlled intersection. However, a standard roundabout would not fit without expanding the right-of-way and acquiring adjacent land and building(s). A "mini" roundabout would fit within the existing roadway prism, but the analysis of this configuration determined that the west leg would fail because of the high volume/capacity (V/C) ratios. Engineers also noted that the existing turn lanes would be sacrificed and made worse when east-bound queuing reaches the intersection. METRO and Sound Transit buses that serve the City and fire engines could not negotiate a mini roundabout. Additionally, the mini roundabout could result in a higher accident rate than a standard roundabout.

Another suggestion was to limit traffic on 100th Avenue SE to one-way northbound. The effects of a one-way vehicle route would fall within the range of impacts identified in the evaluation of the No-Action and the two action alternatives, since those alternatives address the effects of leaving 100th Avenue SE open to two-way vehicle traffic as well as the effects of closing it entirely to through traffic. Therefore, a one-way scenario was not specifically evaluated.

CHAPTER 3 – AFFECTED ENVIRONMENT, IMPACTS, & MITIGATION MEASURES

3.1 EARTH

This section describes the geologic setting, soils, and stability of the study area; applicable plans, policies, regulations, and laws related to development activities in geologic hazard areas; and the effects of the project alternatives on these elements of the environment.

3.1.1 Affected Environment

The study area is located on the Meydenbauer Bay shoreline, on the eastern shore of Lake Washington, near the downtown core of the City of Bellevue (Figure 3.1-1). The study area is approximately 33 acres in area and is a mix of residential, commercial, and public uses. A smaller portion of the study area consists of Meydenbauer Beach Park, the shoreline, and the bay (Figure 3.1-2).

Figure 3.1-1: Aerial View of Study Area and Vicinity.

The mix of residential and commercial areas includes single-family residences, apartments, condominiums, offices, and retail businesses (Figure 3.1-3). These areas have greater than 50 percent impervious surface. Lake Washington Boulevard NE is the main road through the study area. Three paved roads (99th Avenue NE, 100th Avenue SE/SE Bellevue Place, and Meydenbauer Way SE) provide access from Lake Washington Boulevard NE to the marina, the park, and to adjacent private properties.

Meydenbauer Beach Park is a 2.8-acre local waterfront park with an armored shoreline, a grass lawn near-shore area, and a swimming beach and small pier. A children's play area, picnic facilities, and a restroom with lifeguard quarters support the park uses (Figure 3.1-3). The upper portion of Meydenbauer Beach Park consists of a steep, forested ravine. A small native stream currently flows through a pipe under the paved park access road (TWC 2008) and discharges into the lake via an outfall located north of the swimming beach.

The shoreline is approximately 1,250 linear feet from Meydenbauer Beach Park to SE Bellevue Place. Other than the public swimming beach, the shoreline is armored with concrete at the developed park, relatively low rock riprap through the residential areas, and timber bulkheads at the Bellevue Marina. Section 3.5 (*Shorelines*) of this Draft EIS describes the bay's shoreline in detail.

3.1.1.1 Existing Conditions

Topography

Elevation in the vicinity of the study area rises on the northeast and southwest shores of Meydenbauer Bay, forming a protected cove-like setting (Figure 3.1-4). The normal lower and upper levels for Lake Washington are 16.8 and 18.8 feet above mean sea level, respectively (M&N 2008). The water level measured by PGS, Inc. on June 12, 2008 was 18.7 feet, North American Vertical Datum of 1988 or NAVD88 (PGS 2008). Terrain in the study area consists of the developed areas and Meydenbauer Beach Park. Topography in the developed area slopes toward Meydenbauer Bay from the east end of 98th Place NE to within about 100 feet of the shoreline. Most of the slopes in the study area range from about 10 to 30 percent.

Elevation ranges from 19 feet at the shoreline to 90 feet at Lake Washington Boulevard NE to 128 feet at NE 1st Street. The slope is generally flat near and adjacent to the shoreline but rises steeply to Lake Washington Boulevard. The Meydenbauer Beach Park ravine originates from an historic stream but is currently piped. Side slopes in the ravine exceed 40 percent.

Geology

The geology of the Puget Sound region includes a thick sequence of over-consolidated glacial and normally consolidated nonglacial soils overlying bedrock. Glacial deposits were formed by ice sheets originating in the mountains of British Columbia and from alpine glaciers that descended from the Olympic and Cascade Mountains during at least four glacial advances between 150,000 and 10,000 years ago.

The study area is located in the central portion of the Puget Lowland. Regional topography is dominated by a series of north-south trending elongated ridges and glacial uplands. The uplands are separated by large, glacially excavated troughs that were further modified by geologic processes following the retreat of the most recent ice sheet, and which now are partially occupied by Puget Sound and other large bodies of water, such as Lake Washington.

The March 2007 Geologic Map of King County (Booth et al. 2007) indicates that the study area is underlain by glacial till, a very dense, heterogeneous mixture of clay, silt, sand, and gravel with occasional cobbles and boulders.

Source: City of Bellevue GIS 2009

Feet
0 125 250 500

Figure 3.1-2: Aerial

Meydenbauer Bay Park and Land Use Plan EIS
City of Bellevue

Mix of Residential and Commercial Areas

Meydenbauer Beach Park

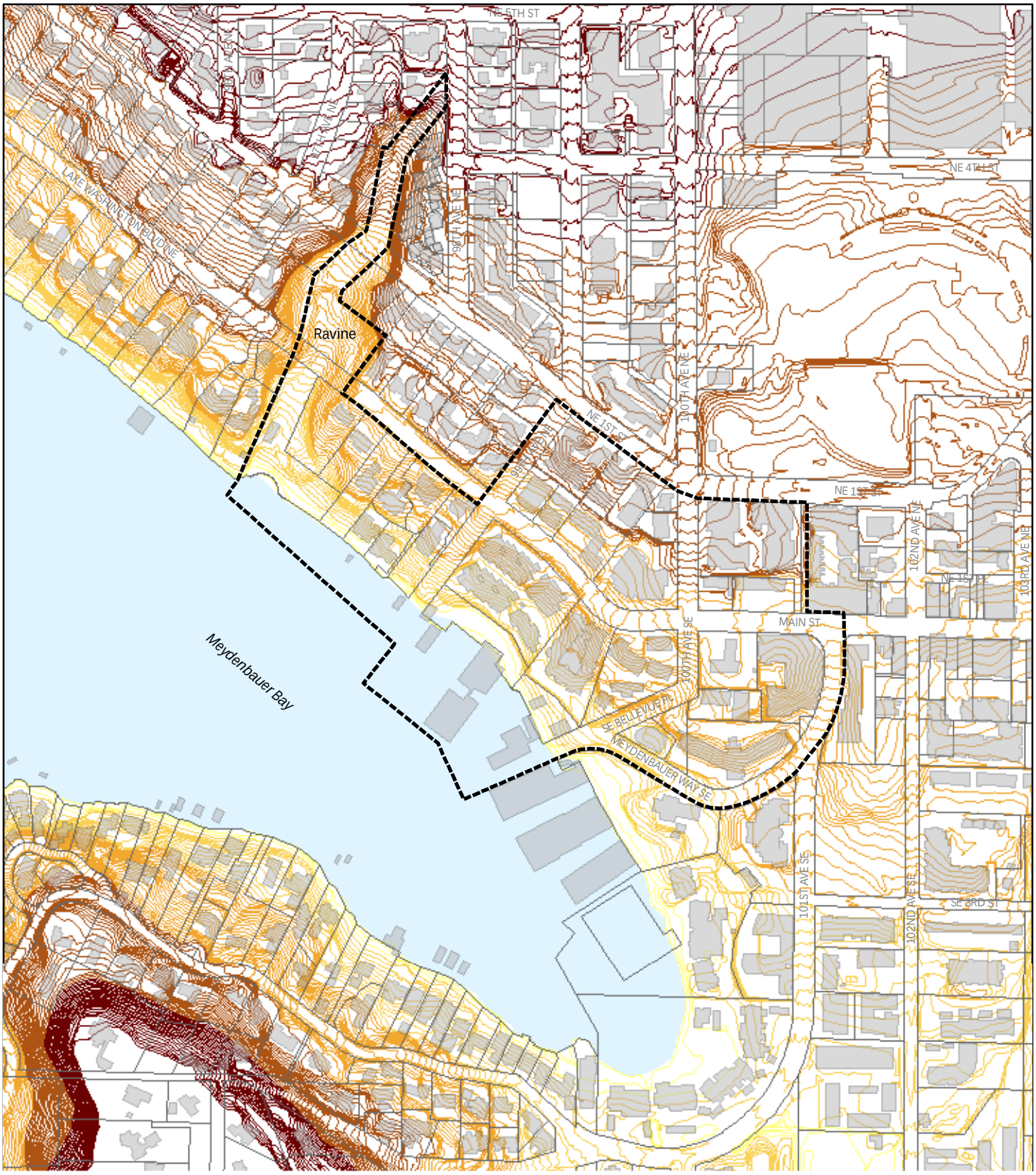
Forested Ravine

Meydenbauer Beach Park - Slope

Riprap Shoreline

Armored Shoreline

Figure 3.1-3: Study Area Photos.



Source: City of Bellevue GIS 2009

0 125 250 500 Feet

Figure 3.1-4: Topography

Meydenbauer Bay Park and Land Use Plan EIS
City of Bellevue

The presence of glacial till in the vicinity of the study area was confirmed during subsurface explorations performed for a geotechnical study (AGRA 1997) completed in association with the proposed Meydenbauer Bridge Retrofit project. The bridge is located on Lake Washington Boulevard NE and crosses the ravine at the west end of Meydenbauer Beach Park.

Subsurface conditions documented in the borings completed during that study indicate that the till extends to at least 40 feet below the surface (the full depth explored). Surficial fill was generally encountered in the upper 4 to 6 feet of the borings. AGRA noted that the fill materials were associated with backfilling for the bridge abutments and grading associated with the park features.

Two soil types are mapped in the study area by the Natural Resources Conservation Service (NRCS*)* Soil Survey for King County (SCS 1973) (Figure 3.1-5). Alderwood gravelly sandy loams, with 15-30 percent slopes (AgD), are mapped on the Meydenbauer Beach Park and the shoreline portions of the study area, extending from the park access road at 98th Place NE west and south along the shoreline, and extending slightly into Meydenbauer Bay (SCS 1973). Arents, Alderwood material, with 6-15 percent slopes (AmC) are mapped on the eastern portion of the study area, primarily northeast of Lake Washington Boulevard NE.

Arents, Alderwood material are moderately well-drained Alderwood type soils that have been disturbed through agricultural or other land use practices, and have lost their natural profile and some of their distinguishing characteristics (SCS 1973). Alderwood sandy gravelly loams are moderately well-drained soils underlain by consolidated glacial till at 24 to 40 inches (SCS 1973). Neither of these soils is on the National Hydric Soils List for Washington State (NRCS 2008).

The Washington Department of Natural Resources (DNR) Division of Geology and Earth Resources has published liquefaction susceptibility maps for Washington. The 2000 DNR map Liquefaction Susceptibility of the Greater Eastside Area, King County, Washington (Palmer et al. 2002) indicates that most of the study area has a "very low" liquefaction susceptibility because of the presence of glacial till (Figure 3.1-6). The areas immediately adjacent to the shoreline and areas under the Bellevue Marina piers are mapped as having "moderate to high" liquefaction susceptibility based on the potential that artificial fill exists in those areas.

Seismic Activity and Earthquakes

The U.S. Geological Survey (USGS) Bedrock Geologic Map of Seattle 30 feet by 60 feet Quadrangle, Washington (Yount and Gower 1991) indicates that bedrock is at least 150 feet below the surface in the study area. The map also shows that the east-west trending Seattle Fault Zone that extends from Bainbridge Island through Seattle, which crosses Lake Washington through the north end of Mercer Island, is located approximately 1 mile south of Meydenbauer Bay.

Bucknam et al. (1992) documented conditions inferring that a large earthquake occurred on the Seattle fault around 900 A.D. This earthquake was accompanied by a tsunami in Puget Sound (Atwater and Moore 1992), landslides in Lake Washington (Jacoby et al. 1992, Karlin and Abella 1992), and rock avalanches in the Olympic Mountains (Schuster et al. 1992).

Rates of displacement and earthquake recurrence intervals for the Seattle fault are essentially unknown. Thorson (1996) used elevations of glacial deltas to infer about 30 feet of uplift along the Seattle fault in the last 16,000 years. This suggests that most postglacial uplift occurred during the ~900 A.D. event and that such large events might reoccur approximately every several thousand years. However, Thorson (1996) also speculated that motion on the Seattle fault over the last 15,000 years may be anomalous because of deglaciation and suggested that relevant recurrence intervals could be shorter or longer. Pratt et al. (1997) developed models to estimate slippage along the Seattle fault and concluded that earthquakes of magnitude 7.6 to 7.7 are possible.

Groundwater

Groundwater was encountered in only one of the seven borings completed for the Bridge Retrofit Project and in only a few of the explorations completed within or in the vicinity of the study area that are available for review on the GeomapNW website (http://geomapnw.ess.washington.edu). The groundwater generally was encountered in the fill zone in the upper 6 feet of the explorations and did not extend into the underlying glacial till. The groundwater in those explorations was interpreted by AGRA and others as infiltrated rainwater that accumulated ("perched") on the relatively impermeable glacial till (AGRA 1997).

Perched groundwater is typical in areas where soils with low permeability such as till occur. Perched groundwater levels are subject to fluctuation related to rainfall, site utilization, and other factors. Perched groundwater can also cause springs or seeps in open cuts or steep slopes where soils consist of fill or weathered loose soil overlying an impermeable layer such as glacial till.

The City of Bellevue's Meydenbauer Beach Park Grounds Operation Manager reported that springs have been observed on the western slope of the park, in areas south and north of the bridge, at the ravine at the north end of the park (pers. comm., R. Cole 2009). The park has installed subsurface drainage along the walk way to control the seepage.

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Fill/Modified Land

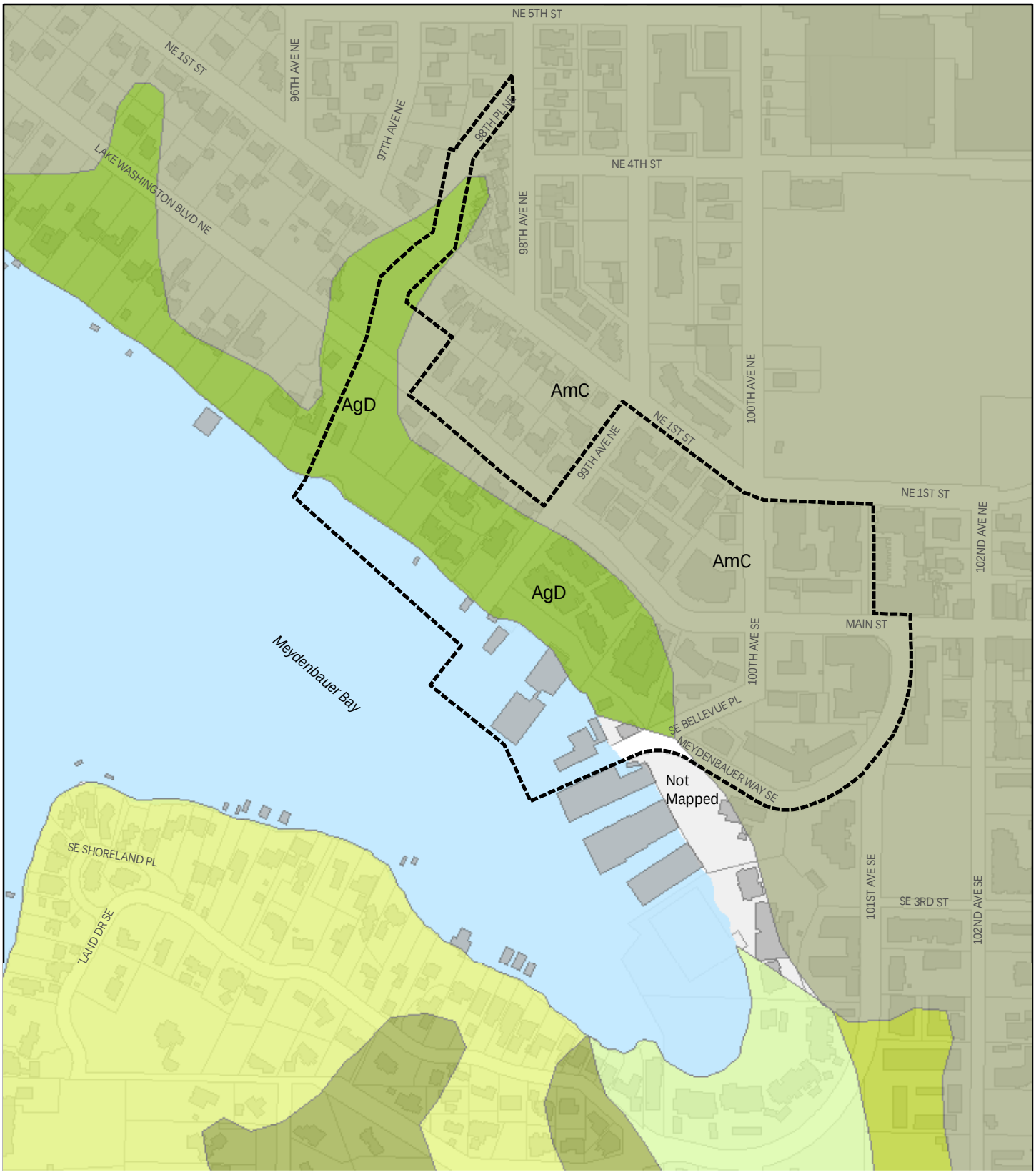
The term "modified land" is used to describe surficial geologic conditions that have been modified by human activities such as, but not limited to, cutting, filling, grading, leveling, and shoreline protection. Surficial grading and filling have likely occurred in localized areas during development within the study area. For example, the sandy material at the swimming beach is imported and not native to the study area.

3.1.1.2 Regulatory Setting

State

Washington State's Growth Management Act (GMA) (Chapter 36.70A Revised Code of Washington [RCW]) requires all cities and counties to identify critical areas within their jurisdictions (such as geologic hazard areas, landslide-prone areas, erosion hazards, and seismic hazard areas) and to formulate development regulations for their protection.

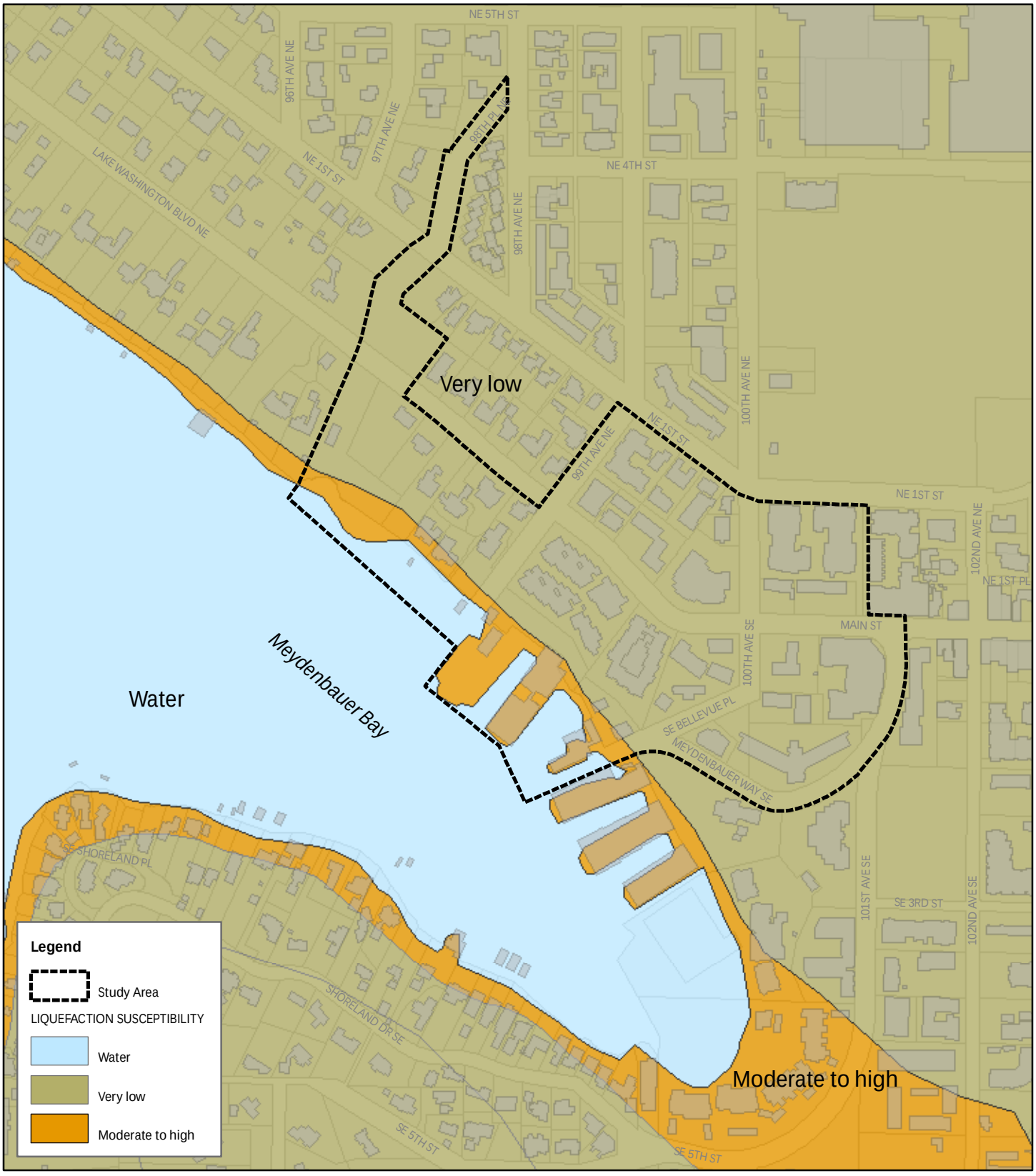
The Washington State Environmental Policy Act (SEPA) requires all governmental agencies to consider the environmental impacts of a proposed action before making decisions.



Source: City of Bellevue GIS 2009

0 125 250 500 Feet

Figure 3.1-5: Soils



Source: City of Bellevue GIS 2009

0 125 250 500 Feet

Figure 3.1-6: Liquefaction

An EIS must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. Depending on the extent of the proposal and potential adverse impacts, SEPA may be satisfied by preparation of an environmental checklist and a determination of nonsignificance (DNS), or the proposal may qualify as categorically exempt. State and local agencies may adopt or supplement existing SEPA documents or environmental documents prepared under the National Environmental Policy Act (NEPA) to fulfill SEPA requirements.

Under the Washington Shoreline Management Act (SMA) (RCW 90.58), each city and county is required to adopt a shoreline master program that is based on state guidelines. For more information on the SMA, see Section 3.5 (*Shorelines*).

Local

The Bellevue City Code (BCC) provides zoning, development, and construction regulations for the use and development of land within the city limits. The Land Use Code (LUC) is Title 20 of the BCC, and includes general use or activity requirements and provisions to address height and size limits, setbacks, parking, landscaping and vegetation, and piers and floats. Future projects must comply with these provisions, as well as with the City's Comprehensive Plan (City of Bellevue 2008), and construction codes contained in Titles 22 and 23 of the BCC, which include seismic standards and clearing and grading controls applicable during construction. Projects must also comply with the Bellevue Environmental Procedures Code (BCC Chapter 22.02). Pertinent regulations for the study area include the following LUC provisions:

- Chapter 20.10 – Land Use Districts
- Chapter 20.20 – General Development Requirements
- Chapter 20.25 – Special and Overlay Districts
  - Part 20.25A – Downtown
  - Part 20.25B – Transition Area Design District
  - Part 20.25E – Shoreline Overlay District
  - Part 20.25H – Critical Areas Overlay District

Geologic Hazard Areas

The City defines and identifies Geologic Hazard Areas in Part 20.25H LUC. Before development is allowed in or immediately adjacent to mapped critical areas, detailed geotechnical studies must be conducted to address geologic hazards including landslide hazards, steep slopes, coal mine hazards, and seismic hazards.

Landslide Hazards and Steep Slopes

The City of Bellevue criteria for landslide hazards and steep slopes are as follows:

- Landslide hazards are defined as areas of slopes 15 percent or more with more than 10 feet of rise, which also display any of the following characteristics:

  - Areas of historic failures, including those areas designated as quaternary slumps, earthflows, mudflows, or landslides.

  - Areas that have shown movement during the Holocene Epoch (past 13,500 years) or that are underlain by landslide deposits.

  - Slopes that are parallel or subparallel to planes of weakness in subsurface materials.

  - Slopes exhibiting geomorphological features indicative of past failures, such as hummocky ground and back-rotated benches on slopes.

  - Areas with seeps indicating a shallow ground water table on or adjacent to the slope face.

  - Areas of potential instability because of rapid stream incision, stream bank erosion, and undercutting by wave action.

- Steep slopes are slopes of 40 percent or steeper that have a rise of at least 10 feet and exceed 1,000 square feet in area.

Areas that meet the above criteria for landslide hazards are likely present in the ravine area where seeps occur on the slope faces and/or due to stream bank erosion. Landslide hazard areas may also occur at the shoreline where wave action erodes the bank. Portions of the study area meet the above criteria for landslide hazards and steep slopes. Site-specific studies to evaluate those areas would be performed during future planning and design relative to specific project plans and in accordance with the City of Bellevue critical area requirements.

Coal Mine Hazards

Coal mine hazards are identified and designated on the City's Coal Mine Area Maps or in the City's coal mine area regulations, LUC 20.25H.130. Coal mine hazards are not present at the study area and are not described further.

Seismic Hazards

Potential seismic hazards include liquefaction, ground shaking, ground rupture, and tsunamis.

- **Liquefaction**. The entire Puget Sound region lies within a seismically active area. Seismic hazard areas are generally defined as those areas subject to severe risk of earthquake damage as a result of ground shaking, ground rupture, soil liquefaction, or tsunamis. As previously described, the DNR Division of Geology and Earth Resources has published liquefaction susceptibility maps for Washington. The 2000 DNR map Liquefaction Susceptibility of the Greater Eastside Area, King County, Washington (Palmer et al. 2002) indicates that most of the study area has a "very low" liquefaction susceptibility because of the presence of glacial till. The areas immediately adjacent to

the shoreline are mapped as having "moderate to high" liquefaction susceptibility based on the potential that artificial fill exists in those areas.

For the purposes of this programmatic study, the liquefaction hazard would be assumed to be low. The actual magnitude and extent of soil liquefaction would depend on many factors including the presence and thickness of fill near the shoreline, the duration and intensity of the ground shaking during the seismic event, and specific soil and groundwater conditions. Accordingly, a site-specific liquefaction analysis would need to be conducted during the building/infrastructure design and permit process for future site improvements to estimate the presence and extent of artificial fill at the study area and to estimate the potential effects due to soil liquefaction at the study area.

- **Ground Shaking**. The entire Puget Sound region lies within a seismically active area, and the potential for moderate to high levels of ground shaking exists. However, the study area is located over thick deposits of dense glacial till that are typically not very susceptible to amplified earthquake ground motions at various frequencies. Less dense, near-surface soils or fills at the study area could affect the level of earthquake ground shaking felt in the area. Seismic design, using current design codes and generally accepted engineering standards and practices, typically addresses potential ground shaking impacts. Site-specific seismic hazard evaluation would be conducted during future planning and permitting for specific project development.

- **Ground Rupture**. The Seattle Fault Zone is located about 1 mile south of the study area. Geologic evidence unearthed on Bainbridge Island suggests that the most recent earthquake to rupture the ground surface occurred about 1,100 years ago with about 20 feet of permanent vertical displacement at that location. Future ground rupture may occur within the Seattle Fault Zone; however, the actual risk at the study area posed by such ground rupture is considered to be relatively small given that the return period for large earthquakes on the fault that may rupture the ground surface is on the order of thousands of years.

- **Tsunamis**. A tsunami is a series of water waves of extremely long period and long wavelength (distance from crest to crest) caused by a sudden disturbance, such as an earthquake, that vertically displaces water. Landslides and underwater volcanic eruptions can also generate tsunamis. Washington's outer coast is vulnerable to tsunamis from distant sources (such as earthquakes in Alaska, Japan, or Chile) and from the adjacent Cascadia Subduction Zone (CSZ). Washington's inland waters, including those in the Puget Sound region, are also subject to tsunamis, particularly those generated by local crustal earthquakes or by surface and submarine landslides.

  In addition to tsunami risks in Puget Sound, science points to a known risk from tsunamis in Lake Washington. The study area is located within the Seattle Fault Zone and is within about 1 mile of a fault. Therefore, there is some risk that fault movement could trigger an earthquake-generated tsunami in the study area. The impact of this movement to the shoreline and upland areas surrounding Lake Washington is unknown. Since there is no documented damage from previous events, areas adjacent to Lake Washington are recommended to be classified as having an unknown risk per Washington Administrative

Code (WAC) 365-190-080(4)(b)(iii), in terms of both the likely risk and distance from the high water mark.

As additional scientific information becomes available, it should be reviewed to determine whether these classifications should be adjusted and whether additional measures should be taken. The USGS, the National Oceanic and Atmospheric Administration (NOAA), and the DNR are authoritative research organizations regarding tsunamis and are therefore relied upon as the source for designation and mapping.

- **Seiche**. A seiche is a standing wave in an enclosed or partly enclosed body of water. Seiches are normally caused by earthquake activity and can affect harbors, bays, lakes, rivers, and canals. In most instances, earthquake-induced seiches do not occur close to the epicenter of an earthquake, but hundreds of miles away. This is because earthquake shock waves close to an epicenter consist of high-frequency vibrations, while those at much greater distances are of lower frequency, which can enhance the rhythmic movement in a body of water. The biggest seiches develop when the period of the ground shaking matches the frequency of oscillation of the water body.

  Seiches create a "sloshing" effect on bodies of water and liquids in containers. This primary effect can cause damage to moored boats, piers, and facilities close to the water. Secondary problems, including landslides and floods, are related to accelerated water movements and elevated water levels.

  In 1891, an earthquake near Port Angeles caused an 8- foot seiche in Lake Washington. Seiches generated by the 1949 Queen Charlotte Islands earthquake were reported on both Lake Union and Lake Washington. The 1964 Alaska earthquake created seiches on 14 inland bodies of water in Washington.

  Large lakes such as Lake Washington have vulnerabilities such as water craft, houseboats, docks, piers, houses, and buildings located on or close to their waterfronts. Additional vulnerabilities include water storage tanks and containers of liquid hazardous materials, which are also affected by the rhythmic motion.

Erosion

Erosion hazard areas are defined as those areas containing soils that may experience severe to very severe erosion from construction activity. The susceptibility to erosion is generally a function of soil type, topography, occurrence of groundwater seepage or surface runoff, and the built environment. According to the King County Area Soil Survey (SCS 1973), the study area is in an urban environment where the erosion hazard is slight; however, certain soil types in the study area may be susceptible to erosion when disturbed by construction, particularly on slopes exceeding 15 percent. When unvegetated and/or disturbed, glacial till, fill material, and landslide debris (or colluvium) are considered severe to very severe erosion hazards on slopes exceeding 15 percent.

Flood Hazard

The study area is not in a mapped flood hazard area. Lake Washington does not have a floodplain because the lake level is controlled by the U.S. Army Corps of Engineers (Corps). Therefore, potential flood hazard is not addressed further.

3.1.2 Impacts

This section describes probable short-term impacts associated with construction of the proposed improvements for each alternative and potential long-term impacts associated with geologic hazards.

3.1.2.1 Methods

This EIS evaluates a No-Action Alternative and two action alternatives (Alternative 1 and Alternative 2), as described in Chapters 1 and 2. The No-Action Alternative provides a future baseline against which to measure the impacts of the action alternatives. The potential earth-related impacts are evaluated qualitatively because of the programmatic nature of this document and because the development activities for the action alternatives are generally similar. Relative differences among the alternatives are identified where appropriate.

The significance of potential earth-related impacts was assessed based on the regulations and codes that govern site development, facility design, and construction. These include (but are not limited to) the BCC and LUC, including the critical areas ordinance, as described in Section 3.1.1.2 (*Regulatory Setting*). A significant impact on earth resources was considered one that is reasonably likely to result in a more than moderate adverse impact.

3.1.2.2 No-Action Alternative

The No-Action Alternative would have the least potential earth-related impacts during the construction phase, due to the minimal intensity of improvements. The No-Action Alternative generally consists of probable redevelopment of two underdeveloped upland sites, demolition of residences and residential docks on properties acquired for park use, and park expansion and minor park redevelopment. A shoreline trail would be constructed, and modest landscaping would be installed. These activities would involve upland and in-water demolition and minor earthwork and construction, compared to the action alternatives. In-water construction would not be required for the No-Action Alternative, although the residential docks would be removed.

Two potential residential redevelopment areas are located at the intersection of 100th Avenue NE and Main Street. Demolition and construction, including earthwork, would be required for redevelopment in those areas. The potential area of redevelopment for the No-Action Alternative is less than the redevelopment area in the action alternatives. The No-Action Alternative would require less demolition and less construction than either Alternatives 1 or 2.

Impacts from construction from the No-Action Alternative would be relatively minor. The activities of the No-Action Alternative would not change the potential for geologic hazards.

Construction Impacts

Construction impacts are generally considered short term and temporary and typically can be controlled using best management practices (BMPs) contained in the Clearing and Grading Code (BCC Chapter 23.76). Construction impacts could potentially occur during demolition, earthwork, and deep foundation construction, as described below.

Demolition

Demolition of existing upland and in-water structures would be required for the No-Action Alternative. Upland demolition activities would include the demolition of existing residences and associated features, buildings and structures, utility line removal/replacement, and pavement removal/replacement. Potential impacts from upland demolition activities could include erosion, release of hazardous materials, and spills and leaks from construction equipment.

In-water demolition activities associated with the No-Action Alternative would include the demolition and removal of existing residential docks. Potential impacts from in-water demolition activities could include the disturbance of sediment during in-water work, release of debris or paint into the waterway, and hazardous materials spills from construction equipment or building materials (e.g., creosote from timber structures, asbestos- and/or lead-containing materials).

The potential impacts from upland and in-water demolition would be addressed by developing and employing erosion control plans, spill control and containment plans, and hazardous materials management plans, as described in more detail below in Section 3.1.3, *Mitigation Measures*. BMPs such as performing in-water work during allowable work windows, using in-water debris booms, cutting off support piles where appropriate to minimize sediment disturbance, using silt curtains to contain disturbed sediment, and/or positioning any necessary barges to avoid grounding could also be used if necessary.

Earthwork

Earthwork activities including excavating, backfilling, and general grading would be needed in association with demolition activities, residential redevelopment, and park improvements.

Temporary excavations could be required for the construction of new structures in the residential redevelopment areas and for park improvements. The excavations would likely be relatively shallow; however, some deeper excavations could be associated with utilities and/or foundations. Excavated soil would be reused on site for backfill or disposed off site at an appropriate facility. Fill materials including soil and gravel would also be imported to the study area for use in site grading, roadway/pavement support, and landscaping.

Earthwork activities for the No-Action Alternative would be less than Alternative 1 and Alternative 2.

Impacts potentially associated with earthwork activities generally relate to slope stability, settlement, groundwater, and erosion, as described below.

Slope Stability

Excavations could potentially result in short-term disturbance and adverse impacts on immediately adjacent areas and/or structures, utilities, and other improvements if excavation slopes are not properly retained. Standard construction measures, such as the use of properly designed and installed temporary shoring systems, would reduce the potential for failure of excavation faces that may cause adverse impacts.

Steep slopes are present in the area but would not likely be impacted by activities of the No-Action Alternative because the proposed improvements are not located in steep slope areas.

Settlement

The glacial till soil in the study area is dense and not generally susceptible to settlement. However, surficial weathered till that is less dense and/or localized areas of existing fills overlying the glacial till could settle depending on the thickness of the fill, fill density, and construction activities. Construction activities such as fill compaction or pile-driving could cause vibrations and potential settlement of buildings, utilities, roads, and/or other structures within about 50 feet of the work.

The type and quantity of existing and future fills and the method(s) of foundation construction (conventional shallow spread foundations versus deep foundations such as piles or drilled shafts) to be used would affect the potential settlement impacts.

Deep foundations are not expected to be required to construct the features associated with the No-Action Alternative; however, fill compaction that could potentially cause settlement could be required in the residential redevelopment area. The potential impact on existing or future adjacent structures or utilities would be directly related to the intensity and duration of the compaction activities.

The potential for settlement from vibrations is difficult to quantify and would be addressed on a case-by-case basis during final geotechnical design for new facilities. Future measures could include pre- and post-construction surveys of nearby buildings and monitoring of ground movements during compaction.

Potential impacts from settlement associated with the No-Action Alternative are expected to be minor and less than Alternatives 1 and 2, because of the relatively minor nature of the proposed development and improvements, but will depend on the depth and type of excavations needed.

Groundwater

Groundwater may be encountered within excavations at relatively shallow depths, particularly during the winter and spring months; thus, construction dewatering could be required to control groundwater flow in some excavations. However, groundwater at the study area is expected to consist of stormwater that has infiltrated and is perched above the dense glacial till. The perched groundwater would likely occur in localized areas depending on topography and soil conditions, and would likely be limited in quantity. Groundwater flow could be controlled by collection and removal (by pumping), the use of sheet piles in the excavation, and/or limiting excavation during the periods of extended rainfall.

Potential impacts from groundwater associated with the No-Action Alternative are expected to be minor and less than Alternatives 1 and 2, but will depend on the depth and type of excavations needed.

Erosion

Susceptibility to erosion is generally a function of soil type, topography, occurrence of groundwater seepage, or surface water runoff. Erosion hazard areas are generally defined as those areas with a combination of soil type and slope that make the area susceptible to erosion by water flow from precipitation or water runoff. According to the King County Area Soil Survey

(SCS 1973), the study area is in an urban environment where the erosion hazard is slight; however, certain soil types in the study area may be susceptible to erosion when disturbed by construction, particularly on slopes. The erosion potential is related to the amount and type of earthwork required.

The potential impacts associated with the No-Action Alternative construction activities would be related to regrading, trail construction, upland demolition, and residential/commercial redevelopment. Measures to address erosion impacts include employing temporary erosion control measures and BMPs.

Potential erosion impacts from the No-Action Alternative are expected to be minor and less than Alternatives 1 and 2, but will depend on the extent of earthwork needed.

Geologic Hazard Impacts

Geologic hazard impacts are described below in terms of how existing soil and geologic conditions at the study area could affect the design and long-term operations of the facilities. The potential that a geologic event or hazard could occur is similar for all of the alternatives. The potential impacts are generally less for the No-Action Alternative than Alternatives 1 and 2 because the No-Action Alternative proposes the least development/improvements.

Landslides

Areas that meet the City of Bellevue criteria for landslide hazards and steep slopes are present within the study area. These areas would be evaluated relative to future project-specific plans in accordance with the City of Bellevue Critical Areas Ordinance (CAO) and LUC requirements during project design.

Surficial landslides could occur along the shoreline as a result of saturation of the shoreline soils and/or in the ravine at the north end of the study area. BMPs would be used to protect the slopes during construction activities to reduce the risk of surficial landslides. Shoreline protection methods would be designed and constructed to minimize long-term landslides potential.

Landslides could also be triggered where construction occurs on or in the vicinity of steep slopes because of disturbance, erosion, and/or saturation of soil on slopes from stormwater drainage. The potential for landslides would be addressed as needed by using appropriate retaining structures or slope stabilization methods and controlling stormwater runoff.

The activities of the No-Action Alternative are not likely to impact the potential for landslides because the proposed activities are not located in steep slope areas.

Seismic Hazards

The study area lies within a seismically active area, and the potential exists for ground shaking, liquefaction, and ground rupture. However, the study area is located over thick deposits of dense glacial till that are typically not susceptible to amplified earthquake ground motions, and where the potential for liquefaction is considered low. However, less dense, near-surface soils or fills at the study area could affect the level of earthquake ground shaking felt in the area and result in localized seismic impacts. Impacts could include damage to roadways, paths/trails, buildings, marine structures, and other facilities.

The potential for ground rupture exists in the study area because of the proximity of faults. However, the potential that rupture would occur is low based on the expected low frequency of occurrence of fault movements that could cause ground rupture. In the event that ground rupture occurs, the impacts would depend on the location of the rupture relative to features in the rupture area, but could include damage to roadways, paths/trails, buildings, marine structures, and other facilities.

Buildings constructed in the residential redevelopment area could be impacted by seismic impacts if not designed appropriately. Site-specific seismic hazard evaluation would be conducted during future planning and permitting for project-specific developments. Seismic design typically mitigates potential seismic impacts.

The potential for seismic impact would be greater for the No-Action Alternative than Alternatives 1 and 2 because the proposed new structures will be designed to mitigate seismic impacts.

Tsunamis/Seiches

The potential exists that an earthquake-triggered tsunami or seiche could occur in the study area. The impacts are unknown but could include temporary inundation of portions of the study area by the tsunami wave and damage/injury caused by debris carried by the wave. The extent of the damage would be dependent on the size of the tsunami and the location of the facilities. Measures could include public notification and warnings.

A seiche would most likely damage in-water structures such as the piers and mooring facilities. Some damage to the shoreline and nearshore structures could also occur.

The potential for impacts from a tsunami or a seiche are difficult to predict. Impacts based on context and intensity would likely be greater for the No-Action Alternative than Alternatives 1 and 2 because the existing structures would be more susceptible to damage than the proposed new structures (public pier, new/upgraded mooring facilities, new buildings), which would be designed and constructed to meet current seismic design standards.

3.1.2.3 Alternative 1

The potential for short-term construction impacts from the activities of Alternative 1 would be greater than the No-Action Alternative and less than Alternative 2. Alternative 1 would require more in-water and upland demolition and construction than the No-Action Alternative, the stream would be daylighted, and a wetland relocated. The residential and commercial redevelopment south of the park would involve a greater area, and the construction and redevelopment would be more extensive than for the No-Action Alternative.

In general, the activities proposed as part of Alternative 1 would not change the potential for geologic hazards.

Construction Impacts

Demolition

Demolition of existing upland and in-water structures would be required for Alternative 1. Upland demolition activities associated with Alternative 1 would include demolition of existing buildings and structures, utility line removal/ replacement, pavement removal/ replacement, and daylighting stream piping at the ravine. Potential impacts from upland demolition activities could include erosion, release of hazardous materials, and spills and leaks from construction equipment.

In-water demolition activities associated with Alternative 1 would include the demolition and removal of existing residential docks, various existing marina structures, and the replacement of slope protection from the shoreline. Potential impacts from in-water demolition activities could include disturbance of sediment during in-water work, release of debris or paint into the waterway, and hazardous materials spills from construction equipment or building materials (creosote from timber structures, asbestos- and/or lead-containing materials).

The potential impacts from upland and in-water demolition would be addressed by developing and employing erosion control plans, spill control and containment plans, and hazardous materials management plans, as described in more detail below in Section 3.1.3, *Mitigation Measures*. BMPs such as performing in-water work during allowable work windows, using in-water debris booms, cutting off support piles where appropriate to minimize sediment disturbance, using silt curtains to contain disturbed sediment, and/or positioning any necessary barges to avoid grounding could also be used if necessary.

The potential for impacts from demolition activities is relatively greater for Alternative 1 than for the No-Action Alternative, and comparable to that of Alternative 2 because of the degree of demolition associated with each alternative.

Earthwork

Earthwork activities associated with Alternative 1 include excavation, backfilling, and general grading to achieve desired site grades for park facilities and improvements, and residential/commercial redevelopment. Temporary excavations would be required for the construction of new structures and facilities for Alternative 1. The excavations would be relatively shallow; however, some deeper excavations could be associated with utilities and/or foundations. Excavated soil would be reused on site for backfill or disposed off site at an appropriate facility. Fill materials including soil and gravel would also be imported to the study area for use in site grading, roadway/pavement support, trails and paths, landscaping, and replacement of shoreline protection.

The extent of earthwork needed for Alternative 1 would be relatively greater than the No-Action Alternative and comparable to that of Alternative 2. Impacts potentially associated with earthwork activities generally relate to slope stability, settlement, groundwater, and erosion, as described below.

Slope Stability

Excavations could potentially result in disturbance and adverse impacts on immediately adjacent areas and/or structures, utilities, and other improvements if excavation slopes are not properly retained. Standard construction measures, such as the use of properly designed and installed temporary shoring systems, would reduce the potential for failure of excavation faces that may cause adverse impacts.

Steep slopes are present in the area. Earthwork development activities on steep slopes may impact slope stability and are regulated through the CAO. Site-specific geotechnical studies would be required during the design of specific facilities to evaluate potential impacts on slope stability and to provide appropriate recommendations.

Earthwork will occur as part of Alternative 1 to daylight the stream within the ravine. This would likely require construction and/or disturbance to steep slopes present in the ravine area. BMPs would be used to mitigate the potential impacts on slope stability.

Potential slope stability impacts from Alternative 1 are relatively greater than the No-Action Alternative and comparable to that of Alternative 2 because of the degree of construction and disturbance associated with each alternative. Local variations would include the slopes along the ravine, which would experience more disturbance under Alternative 1, than under Alternative 2 where only a portion of the stream would be daylighted.

Settlement

The glacial till soil in the study area is dense and not generally susceptible to settlement. As previously described, surficial weathered till that is less dense and/or localized areas of existing fills overlying the glacial till could settle depending on the thickness of the fill, the fill density, and construction activities. Structural fill and backfill material placed during site construction would need to be densely compacted, which could cause vibrations and potential settlement of buildings, utilities, roads, and/or other structures within about 50 feet of the work.

Increased levels of ground vibration could also occur within approximately 50 to 100 feet of pile-driving activities associated with the construction of deep foundations. While deep foundations are not likely to be needed because of the glacial till soil in the study area, piles would be needed for marina improvements and in-water structures. The potential impact on existing or future adjacent structures or utilities would be directly related to the intensity of the vibration, the diameter of the pile, the inherent density of the soil, and the sensitivity of the adjacent structure or utility to vibrations.

The potential for impacts from vibrations is difficult to quantify and would be addressed on a case-by-case basis; vibration impacts could potentially extend a short distance off site for pile-supported structures that are located near the perimeter of the site. Measures to address vibration impacts could include pre- and post-construction surveys of nearby buildings, monitoring of ground movements, vibration monitoring during pile installations, and the use of vibratory hammers versus impact hammers, when practical.

Drilled shafts could potentially be used instead of driven piles for deep foundation support for specific structures. The installation of drilled shafts generally does not produce significant

vibrations; however, installation of temporary casings could produce a limited level of ground vibrations and localized ground settlement around the shaft construction area. Drilled shafts create large volumes of spoils and could require dewatering. The soil and groundwater that could be encountered during the installation of drilled shaft foundations could necessitate special handling, treatment, and/or disposal methods.

The type and quantity of existing and future fills and the method(s) of foundation construction (conventional shallow spread foundations versus deep foundations such as piles or drilled shafts) to be used will affect the potential settlement impacts. Potential impacts would be evaluated and addressed as appropriate during final geotechnical design for new facilities.

Potential impacts from settlement associated with Alternative 1 are expected to be relatively greater than the No-Action Alternative and comparable to that of Alternative 2, because of the level of proposed development and improvements associated with Alternative 1. The potential impacts would depend on the depth and type of excavations needed and the type, number, and installation methods used for pile installation.

Groundwater

Groundwater may be encountered within excavations at relatively shallow depths, particularly during the winter and spring months; thus, construction dewatering could be required to control groundwater flow in some excavations. However, groundwater at the study area is expected to consist of stormwater that has infiltrated and is perched above the dense glacial till. The perched groundwater would likely occur in localized areas depending on topography and soil conditions, and would likely be limited in quantity.

Potential impacts from groundwater associated with Alternative 1 are expected to be greater than the No-Action Alternative and comparable to that of Alternative 2, but would depend on the depth and type of excavations needed.

Erosion

Susceptibility to erosion is generally a function of soil type, topography, occurrence of groundwater seepage, or surface water runoff. Erosion hazard areas are generally defined as those areas with a combination of soil type and slope that make the area susceptible to erosion by water flow from precipitation or water runoff. According to the King County Area Soil Survey (SCS 1973), the study area is in an urban environment where the erosion hazard is slight; however, certain soil types in the study area may be susceptible to erosion when disturbed by construction, particularly on slopes. Construction activities would include employing temporary erosion control measures and BMPs to mitigate erosion impacts.

The potential impacts associated with Alternative 1 construction activities would be related to regrading, trail construction, upland demolition, and residential/commercial redevelopment. Measures to address erosion impacts consist of employing temporary erosion control measures and BMPs.

Potential erosion impacts associated with Alternative 1 are expected to be greater than the No-Action Alternative and comparable to that of Alternative 2, but would depend on the extent of earthwork needed.

Geologic Hazard Impacts

Geologic hazard impacts are described below in terms of how existing soil and geologic conditions at the study area could affect design and long-term operations.

Landslides

Areas that meet the City of Bellevue criteria for landslide hazards and steep slopes are present within the study area. These areas would be evaluated relative to future project-specific plans in accordance with the City of Bellevue CAO and LUC requirements during project design and would be addressed as needed by using appropriate retaining structures or slope stabilization methods.

Surficial landslides could occur along the shoreline as a result of saturation of the shoreline soils and/or in the ravine at the north end of the study area. BMPs would be used to protect the slopes during construction activities to reduce the risk of surficial landslides. Shoreline protection methods would be designed and constructed to minimize long-term landslides potential.

Landslides could also be triggered where construction occurs on or in the vicinity of steep slopes because of disturbance, erosion, and/or saturation of soil on slopes from stormwater drainage. The potential for landslides would be addressed as needed by using appropriate retaining structures or slope stabilization methods and controlling stormwater runoff.

The potential for landslide impacts from the activities of Alternative 1 are expected to be relatively greater than the No-Action Alternative because the construction in steep slope areas would be required to daylight the stream into the ravine. The potential for local impacts on steep slopes in the ravine is slightly more than for Alternative 2 because more of the stream would be daylighted.

Seismic Hazards

The study area lies within a seismically active area, and the potential for ground shaking, liquefaction, and ground rupture exists. However, the study area is located over thick deposits of dense glacial till that are typically not susceptible to amplified earthquake ground motions, and where the potential for liquefaction is considered low. However, less dense, near-surface soils or fills at the study area could affect the level of earthquake ground shaking felt in the area and result in localized seismic impacts. Impacts could include damage to roadways, paths/trails, buildings, marine structures, and other facilities.

The potential for ground rupture exists in the study area because of the proximity of faults. However, the potential that rupture would occur is low based on the expected low frequency of occurrence of fault movements that could cause ground rupture. In the event that ground rupture occurs, the impacts would depend on the location of the rupture relative to features in the rupture area, but could include damage to roadways, paths/trails, buildings, marine structures, and other facilities.

Site-specific seismic hazard evaluation would be conducted during future planning and permitting for project-specific developments. Seismic design typically mitigates potential seismic impacts.

Seismic hazards are generally considered as having potential long-term impacts. The potential for seismic impact is greater for Alternative 1 than the No-Action Alternative because more buildings/structures would be built. The potential impacts associated with Alternative 1 would be comparable to that of Alternative 2.

Tsunamis/Seiches

The potential exists that an earthquake-triggered tsunami or seiche could occur in the study area. The impacts are unknown but could include temporary inundation of portions of the study area by the tsunami/seiche wave and damage/injury caused by debris carried by the wave. The extent of the damage would be dependent on the size of the tsunami/seiche and the location of the facilities. Measures could include public notification and warnings.

The potential for tsunami or seiche impact is expected to be relatively greater for Alternative 1 than for the No-Action Alternative because more buildings/structures would be constructed.

Alternative 1A – Road Open Variant

The potential for earth-related construction impacts under the road open variant would be slightly greater than for Alternative 1 because of the greater amount of grading and shoring that would be required to rebuild or upgrade the roadway compared to Alternative 1.

The potential for long-term geologic hazard impacts would be similar to Alternative 1.

3.1.2.4 Alternative 2

The potential for short-term construction impacts and long-term geologic impacts from the activities of Alternative 2 would be similar to but greater than Alternative 1. Alternative 2 would require more in-water and upland demolition and construction than Alternative 1. While only a portion of the stream would be daylighted and the wetland would be relocated as under Alternative 1, the overall extent of park development would be greater. Although the residential and commercial redevelopment south of the park would be the same as under Alternative 1, the overall potential for construction-related impacts would be slightly greater under Alternative 2.

The activities of Alternative 2 would not change the potential for geologic hazards to occur. The potential impacts of geologic hazards would be comparable to that of Alternative 1.

Alternative 2A – Road Open Variant

The potential for earth-related construction impacts under the road open variant would be slightly greater than for Alternative 2 because of the greater amount of grading and shoring that would be required to rebuild or upgrade the roadway compared to Alternative 2.

The potential for long-term geologic hazard impacts would be similar to Alternative 2.

3.1.3 Mitigation Measures

Construction

Measures to mitigate, reduce, or control the future project-related impacts identified in this section are summarized below. It should be noted that while various options are presented, specific mitigation methods would be determined based on project design and review and site conditions during construction. The City typically relies upon such measures and would require them for future projects, to the extent applicable. These impacts are typically mitigated through the application of the City's Clearing and Grading Code, Critical Areas Code, and Environmental Procedures Code.

Demolition

Mitigation measures for potential impacts from upland and inwater demolition activities could include (but are not limited to):

- Developing and employing erosion control, spill control, and hazardous materials management plans.
- Utilizing BMPs, such as in-water debris booms and silt curtains for shoreline and in-water work (in-water work is considered any activity below the Ordinary High Water [OHW] mark).
- Performing in-water construction within allowable in-water work windows.
- Transporting demolition material and vegetation from land clearing activities to a suitable recycling facility when possible.

Earthwork

Mitigation measures for potential impacts from earthwork activities could include (but are not limited to):

- Using properly designed and constructed shoring systems for temporary construction excavations.
- Using appropriate methods to remove, contain, and discharge groundwater accumulated in excavations.
- Minimizing areas of exposure of unprotected soil. Covering exposed soil stockpiles and exposed slopes as appropriate.
- Using compost, straw mulch, or erosion control matting to stabilize graded areas and reduce erosion and runoff impacts on any sloped areas, where appropriate.
- Implementing a Stormwater Pollution Prevention Plan (SWPPP) to address erosion and sediment control, spill, and stormwater quality during construction.

- Seeding or planting appropriate vegetation on exposed areas as soon as possible after earthwork is completed.
- Intercepting and draining water from any surface seeps, if encountered.
- Incorporating contract provisions that allow temporary cessation of work under certain limited circumstances, if weather conditions warrant. Scheduling earthwork during drier times of the year.
- Reusing excavated soils on site to the extent practical to reduce the volume of material exported off site.
- Selecting any necessary pile driving equipment to match specific subsurface conditions to achieve an optimal pile-driving operation. Use vibratory hammers for pile installation instead of impact hammers, when appropriate.
- Restricting the proximity of fill to existing structures and/or monitoring during fill placement to minimize settlement to adjacent structures.
- Transporting construction materials to the site by barge to the extent practical to reduce truck traffic and associated impacts.
- Controlling the quality of materials imported to the site.
- Controlling export and/or disposal of excess or unsuitable materials generated during construction, including concrete process water and slurry.

Erosion

During construction, contractors would employ temporary erosion and sedimentation control measures (TESCM) and BMPs to minimize erosion, which could include (but are not limited to):

- Designating a certified erosion and spill control lead (CESCL) and completing required inspection and monitoring.
- Routing surface water through temporary drainage channels around and away from disturbed soils or exposed slopes.
- Using silt fences, temporary sedimentation ponds, or other suitable sedimentation control devices to collect and retain possible eroded material.
- Using quarry spalls at construction ingress and egress to dislodge sediment.
- Using a truck wheel wash at the construction exit.
- Stabilizing on-site access roads during wet weather.
- Stockpiling TESC materials (silt fencing, plastic, quarry spalls, etc.) on site.

- Implementing dust control measures during land clearing, grading, and construction activities.
- Using lined aprons or energy dissipaters at outlets to prevent scour.
- Using sediment filters around storm drains.

Geologic Hazards Mitigation

Landslides

Potential landslide hazard risks in the study area would be identified during future planning, design, and permitting of specific facilities. These areas would be evaluated in accordance with the City of Bellevue CAO, LUC, and construction code requirements during project design and would be addressed as needed by using appropriate retaining structures or slope stabilization methods.

Seismic Hazards

The study area has a low risk of impacts from seismic hazards, such as liquefaction and ground shaking. However, some portions of the study area may have a higher risk because of the presence of fill. Higher risk areas would be identified during future planning and design for specific project development at specific locations. Mitigation (if needed) would be addressed through ground improvement techniques and foundation designs. Ground improvement methods could include vibro-compaction, vibro-replacement (stone columns), deep soil mixing, compaction grouting, and preloading. Deep foundation options most commonly used include driven piles, drilled shafts, and augercast piles. The appropriate mitigation measures would be selected based on site-specific conditions.

There is a low risk that ground rupture could occur in the study area. It is not possible to identify or mitigate for potential associated impacts because the location and magnitude of ground rupture cannot be estimated.

Tsunamis/Seiches

There is a low risk that a tsunami or seiche could occur and impact the study area. It is not possible to identify potential associated impacts because the location and magnitude of a tsunami or seiche cannot be estimated. Mitigation measures could include public notification and warnings.

3.1.4 Summary of Impacts

Implementation of the project alternatives would have relatively insignificant potential earth-related impacts. Impacts could potentially occur both over the short term (associated with construction activities), as well as the long term (associated with changes to site features and facilities).

In the short term, construction-activities could temporarily impact erosion susceptibility, slope stability, settlement, and groundwater. These potential impacts can be controlled and minimized by using appropriate construction methods and BMPs. The potential for construction-related

impacts would be slightly more pronounced under the action alternatives relative to the No-Action Alternative, given the greater level of development proposed; however, such impacts are considered slight and insignificant under all project alternatives.

Over the long term, geologic hazards could occur that could potentially impact the study area. These include steep slopes, landslide and erosion hazards, as well as seismically induced liquefaction, ground shaking, ground rupture, tsunamis, and seiches. The potential for impacts associated with steep slopes, landslides, and erosion is relatively minor for all of the project alternatives because they can be controlled with BMPs. The potential for seismic activity cannot be predicted or prevented; however, the potential for liquefaction, ground shaking, and ground rupture impacts is considered low because of the glacial till soil in the study area. The potential for seismic impacts is slightly greater with the No-Action Alternative than for the action alternatives because existing structures may not be designed to withstand seismic activity while new structures proposed under the action alternatives would be designed in accordance with current seismic standards and codes. For this reason, the potential for impacts from tsunamis and seiches is also considered greater for the No-Action Alternative than Alternatives 1 and 2. The potential for impacts under Alternative 1 is considered similar to Alternative 2 because of the similarity of the proposed elements of these alternatives.

In summary, no significant unavoidable adverse earth-related impacts are expected to occur as a result of the project alternatives.

3.2 SURFACE WATER AND WATER QUALITY

The following section describes the regional hydrology, watershed setting, and the ground and surface water features in the vicinity of the study area; applicable plans, policies, regulations, and laws pertaining to work in or near waterways and the protection of water quality; and the effects of the project alternatives on water resources.

3.2.1 Affected Environment

3.2.1.1 Existing Conditions

Water quality is a significant issue for the many residents and users of Meydenbauer Bay. During 2008 public workshops for the Meydenbauer Bay Park and Land Use Plan, concerns were raised regarding stormwater runoff, siltation in the bay, high quantities of Eurasian milfoil in the water, and health of the bay. These comments reflect an overall concern for the bay, and comments on water quality are often received by City staff. The Bellevue Marina receives comments on the extensive milfoil growth year round (pers. comm., Z. Smith 2009), which impacts swimmers and boaters and can further reduce Meydenbauer Bay's water quality (the plants decrease oxygen levels in the water, increase the water temperature, and increase phosphorus loading in the water column).

The study area is located on the Meydenbauer Bay shoreline, on the eastern shore of Lake Washington, near the downtown core of the City of Bellevue (Figure 3.1-1). Runoff within the study area drains to the lake. A dry ravine is located along the northwestern boundary, with a historic creek flowing through a pipe; the ravine features a walking trail from the uplands area to the shoreline area of Meydenbauer Beach Park. Bellevue Marina is located along the shore southeast of the park.

The study area is located within the larger Lake Washington/Cedar/Sammamish Watershed (Water Resource Inventory Area [WRIA] 8) and within the 4th field Hydrologic Unit Code (HUC) 17110012 (Lake Washington). The Lake Washington/Cedar/Sammamish Watershed covers 692 square miles and contains two major river systems (Cedar and Sammamish), three large lakes (Washington, Sammamish, and Union), and numerous creeks including Issaquah and Bear creeks. The watershed drains into Puget Sound through the Ship Canal and Hiram Chittenden (Ballard) Locks. The WRIA includes the marine nearshore and a number of smaller creeks that drain directly to Puget Sound between West Point in the City of Seattle northward to Elliott Point in the City of Mukilteo. WRIA 8 is located predominantly in western King County, but about 15 percent extends northward into Snohomish County.

The study area is located within two local drainage basins identified by the City of Bellevue: the Meydenbauer Creek and the Clyde Beach basins. The basins have total drainage areas of 927 acres and 292 acres, respectively. Of this, approximately 360 acres of the Meydenbauer Creek Basin and 65 acres of the Clyde Beach Basin are associated with stormwater conveyance systems within the study area. Runoff from the basins reaches Meydenbauer Bay via surface and underground drainage features.

The namesake creek within Meydenbauer Creek basin is the primary drainage feature for the basin and has been substantially urbanized, with 29 percent of its total length contained within culverts (City of Bellevue 2003). The lower reaches of the creek have been characterized as fish-

bearing, with observations of trout and salmon as recent as 2001, according to the 2002 drainage basin map for Meydenbauer Creek basin (City of Bellevue 2002).

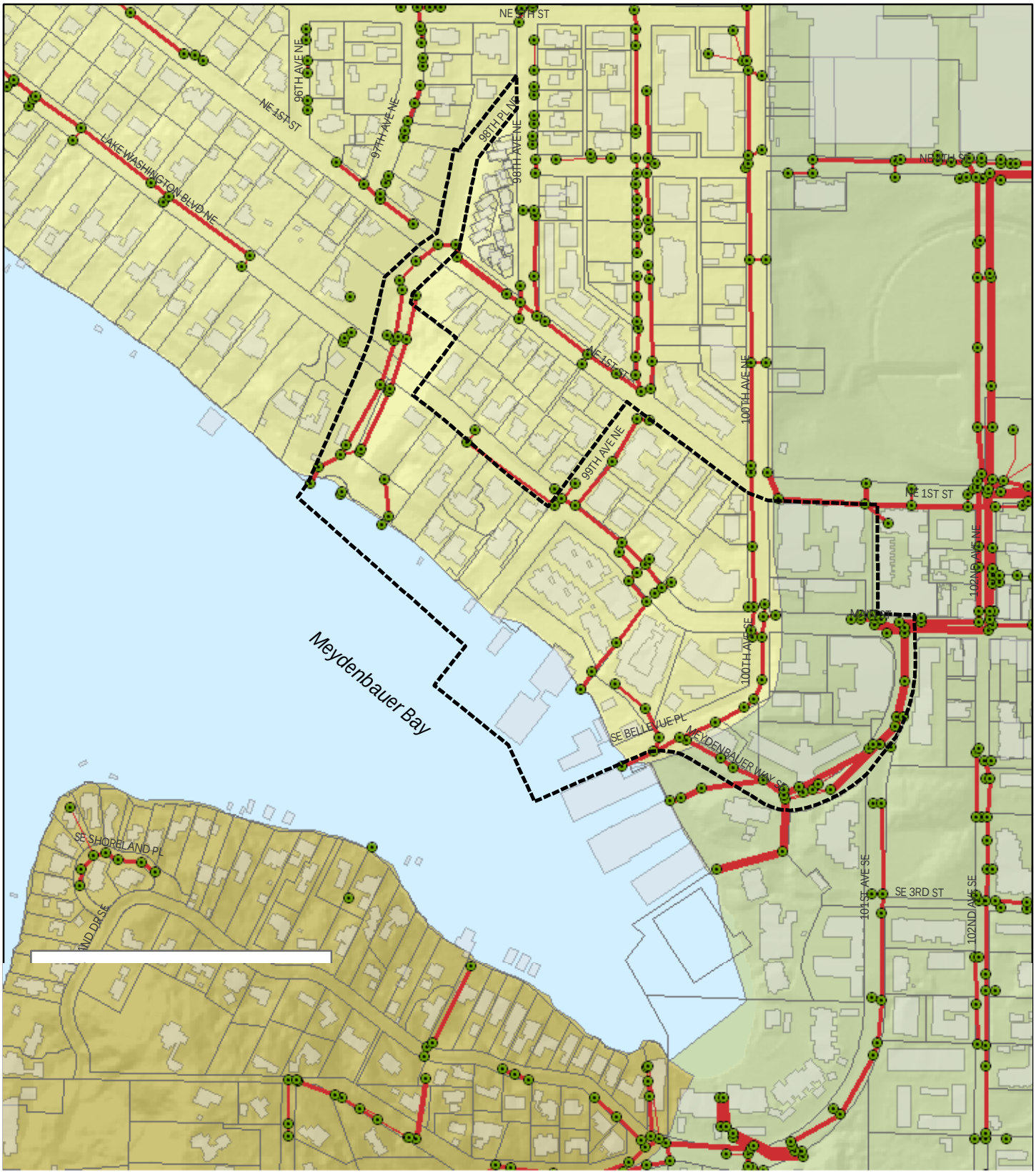
In addition to the existing park and marina facilities, the study area and vicinity are developed with residential and commercial structures. The primary land uses for both basins are single-family residential and public streets, with Meydenbauer Creek basin also having a significant presence of multi-family residences and commercial office space. According to the City drainage basin maps (City of Bellevue 2002), each drainage basin consists of approximately 50 percent impervious surface, half of which can be attributed to public streets. The predominant pollution sources are therefore likely to be associated with vehicle traffic and lawn care.

A network of catch basins and storm drains collects and conveys stormwater to five outfalls within the study area (pers. comm., S. Taylor 2009) (Figure 3.2-1). The 2006 Meydenbauer Creek Basin Assessment of Pollutant Sources Associated with Land Uses and Impervious Surfaces (Taylor Associates 2006), the 2008 City of Bellevue Shoreline Inventory (TWC 2008), geographic information system (GIS) data, and correspondence with the City's Utilities Department (pers. comm., S. Taylor 2009) indicate that there is only one City-operated formal water quality treatment facility, which is a water quality vault (wet vault) installed in conjunction with the Meydenbauer Bridge Replacement Project. This facility treats runoff associated with the replaced bridge and its immediate vicinity only. According to the City, no flow control structures exist in the study area.

Some sediment accumulation occurs at the outfalls. Land-based sediment removal has been conducted at the stormwater outfall near the Bellevue Marina by the City in past years. This occurs periodically as an outfall maintenance practice.

Nearshore waters of Lake Washington in the vicinity of the study area may have high levels of fecal coliform bacteria above the water quality standards and, as a result, have been placed on the Washington State Department of Ecology's (Ecology) 303(d) List of Impaired Waters.

Fecal coliform bacteria and E. Coli bacteria have been monitored in Lake Washington by the King County Swimming Beach Monitoring Program since June 17, 1998. The program collects samples and analyzes data from more than 20 beaches around Lake Washington, including the beach at Meydenbauer Beach Park. Data collection begins in mid-May of each year and continues on a weekly basis through mid-September (King County 2007). The collected fecal coliform data are measured in Colony Forming Units per hundred milliliters (CFU/100 mL). Typical counts caused by aquatic life, birds, and other wildlife range from 50 to 100 CFU/100 mL (King County 2007). These counts are classified as Low Concern. Counts greater than 200 CFU per 100 milliliters are classified as either Moderate or High Concern, as they can be a sign of sewage in the water. If the average mean of counts taken during a test period exceeds 200 CFU/100 mL or any single sample exceeds 1,000 CFU/100 mL, the Washington Department of Health requires the swimming beach to be closed to the public (B-Sustainable 2008) until human bacteria sources, if any, are identified and eliminated and/or continued sampling demonstrates that bacteria levels are within the typical ranges caused by aquatic life, birds, and other wildlife.



Source: City of Bellevue GIS 2009

0 125 250 500 Feet

Figure 3.2-1: Storm Drainage System

Past samples taken in the vicinity of the study area have indicated elevated levels of fecal coliform bacteria above the 50 CFU/100 ml Class AA water quality standards, resulting in the area being placed on Ecology's 303(d) List of Impaired Waters. At the time, birds, such as Canada geese, and other wildlife were believed to be the primary cause. In 2004, however, a leak in a shoreline sanitary sewer line was detected and repaired (pers. comm., R. Cole 2009). Subsequent samples taken since 2005 have consistently measured mean annual fecal coliform bacteria levels below the 50 CFU/100 ml standard, indicating that the leaking sewer line was the likely cause of the elevated bacteria levels (Cole 2009). It is possible this water body may be removed from the 303(d) list if future mean annual levels continue to remain below 50 CFU/100 ml. Washington state does not have formal criteria for delisting a water body; delisting is considered by the state on a case-by-case basis when petitioned and supported with sufficient data.

3.2.1.2 Regulatory Setting

Federal

Clean Water Act

The Clean Water Act (CWA) consists of the Federal Water Pollution Control Act of 1972 and subsequent amendments. The CWA is the primary federal law that governs and authorizes water quality control activities by the U.S. Environmental Protection Agency (EPA) as well as the states. It establishes the basic structure for the regulation of pollutant discharge to surface waters within the United States. One of the tools in the Clean Water Act to improve water quality is the National Pollutant Discharge Elimination System (NPDES) permit program. There are four types of permits that address discharges from various facilities and/or activities: industrial, construction, municipal, and aquatic pesticide. Of these, construction and municipal would apply to future projects in the study area. The Construction NPDES permit is required for new development or redevelopment projects that disturb 1 or more acres. The Municipal NPDES permit applies to municipal storm drainage system discharges and requires municipalities to implement the permit-specified Stormwater Management Program to reduce pollutants discharged from the municipal storm system. The program includes requirements to address potential stormwater and water quality impacts associated with development, redevelopment, and construction projects. In addition to the NPDES permit program, the CWA authorizes EPA to set effluent limits for discharges and requires the agency to set water quality standards for contaminants in surface waters. The CWA authorizes EPA to delegate permits, administration, and enforcement of the law to state governments. In such cases, the EPA still retains oversight responsibilities. In Washington, Ecology implements the CWA.

Both action alternatives analyzed in this Draft EIS reflect levels of development that would warrant both Construction and Municipal NPDES permits. For the Construction NPDES permit, the project will require a Construction Stormwater Pollution Prevention Plan (SWPPP) to address erosion and sediment control, spill, and stormwater quality during construction. Compliance with the Municipal permit will be through adherence to the stormwater treatment facility design standards of the City of Bellevue (which are in turn based on Ecology standards).

State

Growth Management Act

The Washington State Growth Management Act requires all cities and counties to identify critical areas, including streams and wetlands, within their jurisdictions, and to formulate development regulations for their protection.

Clean Water Act Certification

This certification would typically be obtained from Ecology in conjunction with a federal Section 404 permit and a 401 certification via a joint permit application for impacts on wetlands and jurisdictional waters.

State Environmental Policy Act

As described in more detail in Section 3.1.1.2 (*Regulatory Setting*), SEPA requires all governmental agencies to consider the environmental impacts of a proposed action before making decisions.

Local

The City must comply with the NPDES Western Washington Phase II Municipal Stormwater Permit as an operator of a small municipal separate storm sewer system (MS4). There are over 100 Phase II permittees in Washington. The permit authorizes the discharge of stormwater runoff from municipal drainage systems into the state's surface waters (in this case, Lake Washington), provided that the City: implement the permit-specified Stormwater Management Program (SWMP) which consists of programs of best management practices (BMPs) intended to reduce the discharge of non-point source pollutants to the maximum extent practicable, meet state AKART (all known, available, and reasonable methods of prevention, control, and treatment) requirements, and protect water quality.

Compliance with the SWMP would generally begin with an evaluation of the proposed project scope against a variety of development stormwater standards, thresholds and other criteria to determine the scope and goal of stormwater improvements needed. Common results include identifying runoff-generating areas where treatment is required, and the target pollutants and treatment performance standards that inform the treatment facility design.

Nearshore waters of Lake Washington in the vicinity of the study area are listed on Ecology's 303(d) List of Impaired Waters for fecal coliform bacteria in the 2008 Water Quality Assessment for Washington (WQA). The 303(d) List is also referred to in the assessment as Category 5 waters. The listing is based on samples collected between 1998 and 2001 where the mean values for indicated samples were beyond the standard for bacteria. Lake Washington is listed for exceedances of bacteria in several areas. Bacteria sources can be human (e.g., septic, sanitary sewer) or caused by birds, wildlife, pets, soils, etc. When a water body is listed on Ecology's 303(d) List, Ecology develops a water quality clean-up plan, also known as a Total Maximum Daily Load (TMDL), which identifies potential bacteria sources and requires implementation of BMPs to reduce bacteria sources to the water body. To date, Ecology has not developed a bacteria TMDL for fecal coliform for the nearshore areas of Lake Washington in the vicinity of the study area. Being on the 303(d) List of Impaired Waters requires proposed projects in the area to address the issue in the Stormwater Pollution Prevention (SWPP) Plan. Additionally,

water samples taken since 2005 indicate a reduction in fecal coliform bacteria to below Clean Water Act levels following repairs to a shoreline sanitary sewer connection (pers. comm., R. Cole 2009).

Future projects in the study area will be subject to applicable stormwater standard requirements. These may include basic water quality treatment requirements for most of the study area, with isolated oil control treatment in High Use areas. Basic treatment targets suspended solids in the stormwater. Ecology has established a required treatment performance of 80 percent Total Suspended Solids (TSS) removal for influent TSS concentrations in excess of 100 mg/l and <20 mg/l for influent TSS concentrations <100 mg/l.

Areas determined to be High Use sites, which are sites at risk of generating higher-than-normal petroleum hydrocarbon levels, will be subject to oil control treatment, which requires specialized treatment facilities such as oil-water separators, to reduce total petroleum hydrocarbons (TPH) to less than 10 mg/l with no visible sheen. These requirements are in addition to basic treatment facilities.

The City maintains its own Storm and Surface Water Utility code and engineering standards, which are based on Ecology's 1992 Stormwater Management Manual for the Puget Sound Basin (Ecology 1992). All development proposals must meet these standards. A revision to this City code, that will require conformance with Ecology's 2005 Stormwater Management Manual for Western Washington (Ecology 2005), is planned for 2009 (pers. comm., S. Taylor 2009).

Any filling of Waters of the State, which includes wetlands that discharge to Waters of the State, are regulated by the Corps under Section 404 of the Clean Water Act, as well as subject to the Critical Areas Overlay District (Part 20.25H BCC) and the Bellevue Environmental Procedures Code (Chapter 22.02 BCC). Wetlands and streams are also regulated by the Critical Areas Overlay District in Part 20.25H LUC, and also by the City's Storm and Surface Water code (BCC 24.06). Please refer to Section 3.3 (*Plants and Animals*) for more information on the regulatory requirements of streams and wetlands.

3.2.2 Impacts

3.2.2.1 Methods

This Draft EIS evaluates a No-Action Alternative and two action alternatives (Alternative 1 and Alternative 2), as described in Chapters 1 and 2. The No-Action Alternative provides a baseline against which to measure both short-term and long-term impacts of the action alternatives on surface water and water quality.

Short-term impacts for the No-Action Alternative and both action alternatives could include impacts on water quality or surface water caused by site demolition or construction (water turbidity, debris in the water, etc.), similar to those described in Section 3.1.2, Earth.

Modifications to study area features may also affect long-term drainage conditions within the site and potentially change peak stormwater flows and volumes. Potential changes to peak flows and volumes for the action alternatives are compared for each action alternative relative to the No-Action Alternative.

The project alternatives were qualitatively assessed to determine their relative impacts on water quality. This assessment included observations on the quantity of both impervious and pervious surfaces likely to be pollution generating, and opportunities to treat stormwater runoff prior to discharge. Available City and state records of existing stormwater features and water quality data were also reviewed.

Quantitative analysis of the project alternatives is not applicable given the programmatic nature of this EIS. Project-level design will evaluate changes to the terrain, surface types, and drainage systems against the City's standards for stormwater treatment facilities. Project-level analysis also may use two hydrologic models: conveyance-related assessments would use a single event model such as the Santa Barbara Urban Hydrograph (SBUH) and treatment-related assessments would use a continuous simulation hydrologic model based on the EPA's Hydrologic Simulation Program Fortran (HSPF) such as the Western Washington Hydrology Model (WWHM) developed by Ecology.

The type, degree, and significance of potential water quality impacts were assessed based on applicable plans, policies, and regulations, as described in Section 3.2.1.2 (*Regulatory Setting*). A significant water quality impact would be one that is reasonably likely to result in a more than moderate adverse impact on hydrology, surface water, or groundwater in the study area, including increases in pollutants, stormwater discharge, and changes in peak flows.

3.2.2.2 No-Action Alternative

The No-Action Alternative generally consists of minor residential redevelopment and demolition of residences and residential docks on upland and in-water properties acquired for park use. A shoreline trail would be constructed, and some regrading and modest landscaping would be performed following removal of the residential units. The least amount of upland and shoreline development is proposed under the No-Action Alternative, and proposed impervious surfaces could be close to 228,000 sf.

Short-term impacts from minor demolition and construction could include erosion of sediment and earth generated from land-disturbing activities, release of hazardous materials into lake waters, and spills and leaks from construction equipment. The potential impacts from upland and in-water demolition would be addressed by developing and employing erosion control plans, spill control and containment plans, and hazardous materials management plans, as described in detail in Sections 3.2.3 and 3.2.3 below. Construction within the study area would be required to comply with the federal Clean Water Act, and a violation of water quality standards may require efforts to improve stormwater quality.

The effect of two upland parcels redeveloping under existing DNTN-OB zoning (the northeast and southeast corners of 100th Avenue and Main Street) would largely depend on individual site design, including net changes to impervious surface, selection of building material (primarily for roofs), and methods of on-site stormwater management. Each development would undergo a project-specific drainage review (as described in Section 3.2.2.1, *Methods*) to determine the specific stormwater requirements under the City of Bellevue stormwater management program. Improvements to stormwater system elements external to the upland development sites (i.e., off site) may also be necessary to support increased impervious surface or proposed treatment systems.

Potential short-term construction impacts resulting from the upland redevelopment would be addressed by required treatment and on-site stormwater management features. Long-term conditions would benefit from bringing properties up to current standards.

3.2.2.3 Alternative 1

Alternative 1 would reconfigure and expand the park to include additional walking paths and parking, but would reduce vehicle access to the water. Additional upland development in the area would include additional buildings, public spaces, and transitional features from downtown to the park. An existing stream within the ravine, which is currently conveyed via an underground pipe, would be daylighted and restored along its entire length within the project boundary. Storm drains currently discharging to the underground stream would be modified to continue to discharge to the stream or be rerouted to other outfalls. An additional water feature that might provide additional stormwater treatment also is proposed on the southeast portion of the study area, in the vicinity of 100th Avenue NE and 100th Avenue SE. Replacement of the southern segment of 100th Avenue SE with a pedestrian walkway would eliminate vehicle-generated runoff pollution associated with the segment.

New development and redevelopment projects of any scope must comply with construction stormwater pollution prevention requirements. Projects begin to require formalized stormwater planning, including stormwater site plans and on-site stormwater management efforts, if they involve the creation or replacement of 2,000 square feet of impervious surface or involve greater than 7,000 square feet of land-disturbing activities. Treatment and flow control requirements apply to new and replaced impervious surfaces if they exceed 5,000 square feet or if 0.75 acres or more of native vegetation is converted to lawn or landscaped areas. Both action alternatives currently exceed these thresholds (Alternative 1 could result in approximately 250,000 sf of impervious surfaces, and Alternative 2 could result in approximately 327,000 sf of impervious surfaces) and would therefore need to comply with all City of Bellevue stormwater requirements.

Similar to the No-Action Alternative, short-term impacts would include potential erosion and sediment generated by land-disturbing activities. However, these impacts would be prevented or addressed by required construction stormwater erosion and sediment control plans. Vegetation-based treatment facilities would also likely require increased landscaping attention until well established. The study area would also still be required to comply with the federal Clean Water Act.

Long-term impacts would include an increase in certain initial pollutant concentrations in runoff, such as sediment, zinc, or copper, followed by a net reduction (compared to existing conditions) in some to all pollutants at the point of discharge because of the inclusion of stormwater treatment facilities. The effect on individual pollutants would be influenced by the type of treatment facilities installed (the treatment performance for each individual pollutant varies based on the treatment facility used). Increased impervious surface created by the project would also increase peak runoff rates, which may cause erosion at outfalls and in existing natural or manmade conveyance channels.

Upland parcel development effects would largely depend on individual site design including net changes to impervious surface, selection of building material (primarily for roofs), and methods of on-site stormwater management. Each development would undergo a project-specific drainage review (as described in Section 3.2.2.1, *Methods*) to determine the specific stormwater

requirements as specified by the City of Bellevue stormwater management program. Improvements to stormwater system elements external to the upland development sites (i.e., off site) may also be necessary to support increased impervious surface or proposed treatment systems.

Stormwater treatment facilities for Alternative 1 would require routine maintenance to maintain treatment performance, which will most likely result in increased maintenance and operation costs relative to the No-Action Alternative. Maintenance typically includes inspections, removal of accumulated sediments and floatables, and replacement or cleaning of any filter media. Filter media include cartridge-type filters found in structural treatment facilities and more natural infiltration beds in bioretention areas and swales. Treatment facilities that use a vegetation component would require periodic pruning or mowing, while periods of extended drought may necessitate irrigation or replanting. Specific maintenance requirements would be established as the design progresses and treatment facilities are selected. Maintenance requirements and a record of all maintenance would be documented in a stormwater pollution prevention plan that is required by Ecology in conjunction with the stormwater treatment requirements.

Future design of project elements proposed in Alternative 1 would need to address the following stormwater- and water-quality related issues.

Ravine Stream Hydraulic Design

The design to daylight the entire ravine stream would need to address the seasonal flow variations of the native creek, potential for flooding, potential need for flow control, and treatment of contributing storm drains.

Estimates of the natural flow of the stream would need to be assessed to achieve proper hydraulic and aesthetic design. The potential for flood conditions and damage to surrounding property would also need to be determined and addressed.

Because the stream is currently contained within a piped conveyance system, it is likely that the contributing storm drains do not presently use flow control facilities to limit their peak flows into the steam. Restoring the stream to a more natural condition may require the addition of flow control facilities, rerouting of storm drains, or other measures to prevent erosive flow conditions during peak flow events.

Additional treatment facilities may be needed upstream of the feature, depending on the typical nature of the contributing runoff (e.g., turbidity, oil, floatables, smell, etc.) and intended public accessibility (e.g., wading, touching, viewing).

Treatment of contributing flows may also need to be considered as part of both the stormwater and aesthetic design.

For Alternative 1, daylighting the ravine stream may induce additional water treatment mechanisms within the streambed, but the nature and effectiveness of these mechanisms would depend on the design of the restored streambed. A heavily vegetated streambed may provide mechanical filtration and biological uptake treatment benefits, but this may be less desirable from a habitat or aesthetic standpoint.

It is important to note that the "restored" condition of the stream would likely differ significantly from its original natural condition because of the need to design around an urbanized watershed. An urbanized watershed typically generates higher peak runoff rates, and results in higher water temperatures because of the large quantities of impervious surface. The resultant stream restoration would therefore include more shore protection and be designed to accommodate larger flows than the original stream. Protection may also need to extend farther away from the streambed to stabilize the surrounding slopes.

Buildings, Vehicle Access, Lawn, and Landscaped Areas

Under Alternative 1, proposed roads, parking areas, lawn, landscaped areas, and upland building development would likely exceed treatment exemption thresholds and require that the generated runoff undergo treatment prior to discharge into Lake Washington. Ecology has approved a variety of treatment BMPs, including Low Impact Development (LID) systems such as pervious pavement and bioretention areas, that may be suitable within the study area.

It is likely that LID systems would be used extensively for both Alternatives 1 and 2, given the abundant opportunities (green space) within the study area, the typical cost savings associated with LID systems, and the superior performance of LID systems relative to stormwater quality.

Increased vehicle traffic may increase suspended solid, dissolved metal, and oil concentrations in the stormwater runoff, but stormwater treatment facilities to be installed within the study area may minimize the additional contribution of some or all pollutants to the runoff. It is likely that there would be a net reduction in some or all runoff pollutants for most discharge areas because of improved stormwater treatment compared to the No-Action Alternative.

Water/Stormwater Feature

Alternative 1 proposes to incorporate terraced gardens and a path from Main Street to the Bellevue Marina. A water feature (pools or fountains) or a stormwater feature (to provide some additional stormwater treatment in this area) could also be considered at the project level. Any proposed stormwater feature would need to undergo additional definition to determine function and feasibility. If supplemental pumping of lake water to the feature is considered for some portion of seasonal flow variation, additional regulatory issues would also need to be studied and addressed. Required volume and flow rates, necessary to meet design criteria for a pumping system, may have impacts on other aspects of the site (e.g., impacts on nearby aquatic habitat or life). Seasonal variation of the flow would need to be considered for both aesthetic and treatment purposes (if treatment is intended).

The effectiveness of any concept would rely on further defining the specific water quality issues for the site. Issues include physical (sedimentation, runoff, erosion, and temperature); chemical (dissolved oxygen and pH); biological (decayed organic materials); and pollution (pesticides, toxic and hazardous substances). Options would then be developed to treat these specific issues and evaluated. Modeling (and possible field studies) is usually required to evaluate different options. Results from such studies would identify the effectiveness as well as any other possible related impacts of the options. It would also be important to consider the scale at which any option would be evaluated. Connection of Meydenbauer Bay to Lake Washington could minimize the overall effectiveness of a proposed system. This is not to discount the importance of local, small scale efforts, but to bring attention to the complexity that the site may bring.

Alternative 1A – Road Open Variant

Under Alternative 1A, vehicle access would be allowed within the study area by retaining 100th Avenue SE south to connect to Meydenbauer Way SE. The water quality impact (positive or negative) for this alternative would be largely affected by changes in traffic volume and whether or not treatment facilities are incorporated into any improvements made within the right-of-way. Compared to Alternative 1, there is a potential to generate more runoff pollution, but this potential could be addressed by additional treatment facilities.

3.2.2.4 Alternative 2

Alternative 2 proposes a similar reconfiguration of the study area to Alternative 1, with the notable exception of the ravine stream, which would incorporate daylighting of only a portion of the stream, and would incorporate only a water feature in the vicinity of 100th Avenue NE (not a stormwater feature as a proposed option in Alternative 1). Upland improvements would be similar to those for Alternative 1 and would include additional buildings, public spaces, and transitional features from downtown to the park.

Issues regarding the daylighted portion of the creek would be similar to those described above for Alternative 1; however, both the benefits and concerns would be less because a smaller stream section would be daylighted. Possible water quality benefits, as described above for Alternative 1, could also result, but the extent of the benefits would depend on the final design and proposed functionality for the stream modifications.

While Alternative 2 does not incorporate surface stormwater management near 100th Avenue NE, treatment would still be required for any vehicle-accessible areas. As with Alternative 1, LID systems could be incorporated into the project. An overall net benefit is likely through the installation of treatment facilities where there are currently none, but may be slightly less than under Alternative 1. Replacement of the southern segment of 100th Avenue SE with a pedestrian walkway would eliminate vehicle-generated runoff pollution associated with the segment.

Similar to Alternative 1, short-term impacts would include potential erosion and sediment generated by land-disturbing activities. As under Alternative 1, these impacts would be prevented or addressed by required construction stormwater erosion and sediment control plans. Development within the study area would be required to comply with the federal Clean Water Act.

Long-term impacts would also be similar to those identified for Alternative 1, and would include an increase in certain initial pollutant concentrations in runoff, followed by a net reduction in some to all pollutants at the point of discharge because of the inclusion of stormwater treatment facilities. The effect on individual pollutants would be influenced by the type of treatment facilities installed (the treatment performance for each individual pollutant varies based on the treatment facility used). Compared to the No-Action Alternative, increased impervious surface would generate increased peak runoff rates, which may cause erosion at outfalls and in existing natural or manmade conveyance channels without appropriated measures being in place.

Upland development impacts would be the same as those described for Alternative 1.

Stormwater treatment facilities would require routine maintenance to maintain treatment performance, similar to Alternative 1.

Alternative 2A – Road Open Variant

The Road Open Variant for Alternative 2 is similar to the Road Open Variant of Alternative 1, with similar stormwater issues that would be addressed in a similar fashion. As with Alternative 1A, the water quality impact (positive or negative) of Alternative 2A would be largely affected by changes in traffic volume and whether or not treatment facilities are incorporated into any improvements made within the right-of-way. Compared to Alternative 1, there is a potential to generate more runoff pollution, but this potential could be addressed by additional treatment facilities.

3.2.3 Mitigation Measures

During construction, future projects will need to comply with all construction-related stormwater requirements, including temporary erosion and sediment control, and development and implementation of a stormwater pollution and spill prevention plan. These short-term mitigation measures would be similar to those listed in Section 3.1.3 and would be required as part of future project review and approval processes.

The project-specific design will determine the necessary permanent, long-term treatment requirements, but it is likely that Basic Treatment (as defined by Ecology) will be necessary for all vehicle-accessible areas. Large areas of landscaping or lawn, unless strict policies on pesticide and fertilizer use are adopted, will also be subject to treatment requirements.

Existing stormwater treatment facilities will be maintained or replaced with an equal or better facility if feasible. Where infeasible, treatment of an equivalent area elsewhere will be proposed such that there is no net loss of pollution treatment. Such design would be consistent with Ecology's procedure regarding equivalent area trading.

No specific treatment method is proposed at this point, but it is likely that treatment would consist of various LID systems to the extent feasible. Additional erosion protection improvements may be needed at project outfalls because of increased peak runoff rates caused by an increase in impervious surface.

3.2.4 Summary of Impacts

Impacts on stormwater quality and quantity are affected by a variety of site design elements including quantity, configuration, and intended use of impervious surfaces, landscaped surfaces, and natural areas, as well as the selection, placement, and sizing of treatment and flow control facilities. Current regulations recognize the adverse effects of improper stormwater management and generally seek to prevent these through a variety of site design requirements and construction methods. The project site was previously developed without these requirements such that this project, under either Alternative 1 or Alternative 2, provides the opportunity to replace existing stormwater features (which primarily serve as property drainage) with state-of-the-practice site stormwater management and treatment methods, while generally maintaining the characteristics of the site. A long-term net benefit to stormwater quality is expected as a result. Short-term impacts associated with construction activities, such as runoff turbidity and

increased sediment, are also expected to be minor for the No-Action Alternative or both action alternatives due to more strict controls on runoff generated by construction sites. Both action alternatives are very similar in nature and would likely be indeterminable in terms of stormwater impact. For example, differences in impervious surface area may be offset by different surface configurations and treatment methods (which are selected on a case-by-case basis to address localized site conditions). Currently, differences in impervious surfaces between the alternatives seem to be more than minor (228,000 sf for the No-Action Alternative, 250,000 sf for Alternative 1, and 327,000 sf for Alternative 2). However, future design could significantly change these estimates for any alternative and, given the size of the entire drainage basin area, the differences in these current approximations are minor. Any future stormwater design for any of the alternatives would need to comply with all City of Bellevue stormwater requirements.

The installation of new treatment facilities under both action alternatives would result in increased maintenance costs compared to the No-Action Alternative. However, both Alternative 1 and Alternative 2 would provide overall long-term improvements in stormwater quality compared to the No-Action Alternative because of the more substantial opportunity to install treatment facilities in areas not currently being treated.

The general characteristics of the site would not be adversely affected by any of the project alternatives. Required stormwater management efforts triggered by the municipal permit for redevelopment, consistent with current standards, would offset some or all of the resulting increases in adverse effects of stormwater brought about by increased site development. No significant, unavoidable adverse impacts would result, and the impacts from either action alternative would be comparable to one another and significantly better than the No-Action Alternative.

3.3 PLANTS AND ANIMALS

For this section, plants and animals include plants and wildlife, fish, and their habitats within the study area. This section addresses how each alternative may differ in its effect on plants or animals, as well as how regional conditions may be affected by the project overall.

3.3.1 Affected Environment

For the purpose of evaluating the potential impacts of the project alternatives on plants and animals, the affected environment has been defined as those species known to occur in the study area or likely to occur given the presence of suitable habitat and known distribution in the general area.

Special status species, which include the City's list of Species of Local Importance (LUC 20.20H.150(A)) and federally threatened and endangered species, potentially occurring in the vicinity of the study area were determined from lists obtained from the U.S. Fish and Wildlife Service (USFWS 2009) website for King County, Washington; the National Marine Fisheries Service (NMFS 2009) website for federal listing status of species and critical habitats; the Washington Department of Fish and Wildlife (WDFW 2009) website for priority habitats and species; and the Washington DNR Natural Heritage Program website for rare plants (DNR 2009).

Information on plants and animals in the study area is based on a review of existing data and assessments and field reconnaissance. Sources include the following: Meydenbauer Bay Sub-Area Shoreline Inventory Report (TWC 2008), StreamNet Data Library searches (StreamNet 2009), Lake Washington Existing Conditions Report (King County 2003), City of Bellevue Critical Areas Update Best Available Science Papers (City of Bellevue 2003a, 2003b), and study area baseline environmental data presented in technical memoranda prepared for the City by EDAW and Moffatt & Nichol.

3.3.1.1 Existing Conditions

Plants and Wildlife

Historically, the study area included conifer forests typical of the Western hemlock (*Tsuga heterophylla*) forest zone in the Puget Sound lowlands (Franklin and Dyrness 1988). Most of these native conifer forests have been converted to residential, industrial, and commercial uses. The study area is located within a densely populated urban area that is dominated by commercial and residential development. EDAW ecologists divided the study area into four habitats: mixed urban environments, a forested ravine, small fragmented wetlands, and shoreline (Figure 3.3-1).

Mixed Urban Environment

The mixed urban environment area is approximately 24 acres, vegetated mostly with species selected for commercial, residential, and street landscaping. This high-density urban area has 50 percent impervious surface. Discrete patches of natural areas are so small that native interior species cannot be supported because they are disconnected and lack structural diversity (Johnson and O'Neil 2001).

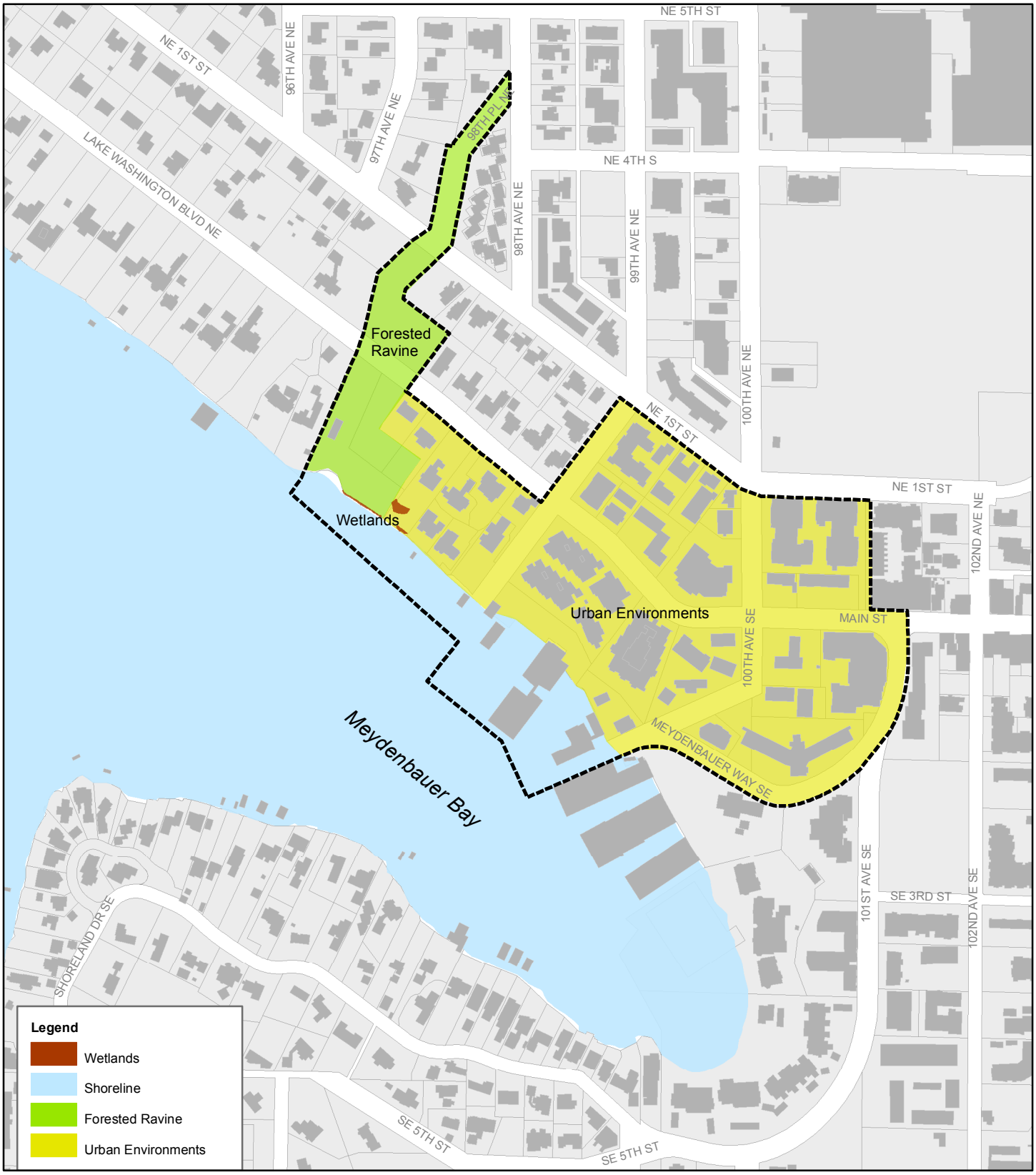
Vegetated areas include residential lawns and street trees. Lawn grass is primarily annual bluegrass (*Poa annua*). Douglas-fir (*Pseudotsuga menziesii*) and ornamental pines (*Pinus* spp.) are the dominant conifer street trees, with a variety of ornamental deciduous trees including poplars (*Populus* spp.), elms (*Ulmus* spp.), and cherries (*Prunus* spp.) scattered throughout.

Urban environment elements faced by wildlife in this habitat are roads, vehicle traffic, ever-present background noise, artificial lighting, and highly maintained and manicured landscaping. Wildlife dispersal is limited and conditions are dangerous. Because of these attributes, most wildlife species found in the study area habitat are birds and small mammals (EDAW 2008a). Typical birds found in the study area are ground-foraging species like the European starling (*Sturnus vulgaris*), house sparrows (*Passer domesticus*), and rock pigeons (*Columba livia*). Because of the proximity to Lake Washington, gulls (*Larus* sp.) are common. Small mammals in this urban habitat include the Norway rat (*Rattus norvegicus*), black rat (*Rattus rattus*), and house mouse (*Mus musculus*). Other mammals using this habitat include squirrels (*Sciurus* sp.), raccoons (*Procyon lotor*), and opossums (*Didelphis virginana*).

Forested Ravine

The forested ravine area is approximately 4 acres and is located within the Meydenbauer Beach Park boundary and adjacent private parcels (Figure 3.3-1). The park is also described in Section 3.6 (*Parks and Recreation*). The ravine is landscaped with native vegetation. As described in the Baseline Habitat and Vegetation Functional Analysis technical memorandum (EDAW 2008a), the forested ravine slopes consist of big-leaf maple (*Acer macrophyllum*), red alder (*Alnus rubra*), western red cedar (*Thuja plicata*), Douglas-fir, western hazelnut (*Corylus cornuta*), Pacific madrone (*Arbutus menziesii*), and invasive cherry laurel (*Prunus laurocerasus*). Very little native shrub understory is present, although oceanspray (*Holodiscus discolor*) was noted in several locations. The herbaceous layer is dominated by English ivy (*Helix hedera*). Himalayan blackberry (*Rubus armeniacus*) is present near the wetlands. The ravine bottom was historically an open channel that is now piped; the area consists of a paved sidewalk and lawn connecting the parking lot in the upper portion of the ravine to the beach along Meydenbauer Bay.

Meydenbauer Bay Beach Park provides natural cover for wildlife away from the urban environment described above. In general, urban parks are rapidly assuming a central role in the protection of native wildlife from urban-related disturbances (Johnson and O'Neil 2001). The forest area favors cavity nesters, primarily house sparrows, starlings, and occasionally northern flickers (*Colaptes auratus*) and violet-green swallows (*Tachycineta thalassina*). The maintained lawn along the ravine bottom provides habitat for flock-feeding species like American robin (*Turdus migratorius*), Brewer's blackbird (*Euphagus cyanocephalus*), and starling. The occasional presence of spotted towhees (*Pipilo maculates*), dark-eyed juncos (*Junco hyemalis*), and song sparrows (*Melospiza melodia*) is evident. Potential roosting and nesting habitat exists for raptors such as bald eagle (*Haliaeetus leucocephalus*), osprey (*Pandion haliaetus*), and red-tailed hawk (*Buteo jamaicensis*) (pers. comm., K. Paulsen 2009). A Douglas-fir has been topped, and an artificial osprey nest platform is on the tree top. No bald eagle, osprey, or red-tailed hawk nests were observed during site visits. Squirrels are abundant. Bats (*Myotis* sp.) are not likely present because of the proximity and intensity of human disturbance. No bats have been documented in the study area. Garter snakes (*Thamnophis* spp.) and Pacific treefrogs (*Hyla regilla*) are likely present but limited in numbers.



Source: City of Bellevue GIS 2009

0 125 250 500 Feet

Figure 3.3-1: Habitats

Meydenbauer Bay Park and Land Use Plan EIS
City of Bellevue

Wetlands

Three small wetlands were delineated within the study area (EDAW 2008b). All three wetlands are within 100 feet of the Meydenbauer Bay shoreline, and close to one another (Figure 3.3-1). The combined wetland area is approximately 2,000 square feet, and all wetlands are dominated by herbaceous vegetation (EDAW 2008b). Based on the Wetland Rating System for Western Washington (Hruby 2004), the wetlands are rated as Category IV (heavily disturbed).

Combined, the three wetlands are maintained as a landscaped area with some weedy vegetation and most native vegetation removed. Vegetation includes bindweed (*Convolvulus* sp.), reed canarygrass (*Phalaris arundinacea*), common rush (*Juncus effusus*), and creeping buttercup (*Ranunculus repens*). The wetland has no standing water or woody stemmed vegetation, no woody debris, and no other features that would make it suitable for wildlife use distinct from a residential lawn extending to the armored shoreline. Detailed information on wetlands in the study area is provided in the Wetland Delineation Report (EDAW 2008b).

According to the Baseline Habitat and Vegetation Functional Analysis (EDAW 2008a), habitat quality for amphibians is low in these small wetlands. Because the wetlands are small, lack standing water, and close to urban disturbance, most wildlife species found are birds, primarily flock-feeding species like American robin. The wetlands are occasionally used by Canada geese (*Branta canadensis*) and gulls.

Shoreline

The shoreline habitat that includes Meydenbauer Bay and Lake Washington is described in Section 3.2 (*Surface Water and Water Quality*) and Section 3.5 (*Shorelines*). There is approximately 50,000 square feet of overwater structure. Existing piers in the bay may provide refugia (via hydrologic shadow and deck shading) for nonnative piscivorous fish. These artificial overwater structures in the bay may influence native fish use of the water column and the bay within the study area, providing opportunities for predators that may not otherwise exist.

In general, the shoreline is armored with riprap and lacks vegetation. A nonnative invasive freshwater plant, Eurasian watermilfoil (*Myriophyllum spicatum*), is present in small scattered patches along the shoreline on riprap. Mallards (*Anas platyrhynchos*) and gulls are common. Pier piling are used by double-crested cormorants (*Phalacrocorax auritus*) and great blue herons (*Andrea herodias*). In addition, bald eagle and osprey use the bay for foraging (pers. comm., K. Paulsen 2009).

Noxious Weeds and Invasive Species

Noxious weeds are found in the forested ravine portion of the study area. Noxious weeds present in the study area include Class B: Eurasian watermilfoil and yellow flag iris (*Iris pseudacorus*); and Class C: English ivy, Himalayan blackberry, and reed canarygrass (NWCB 2009). These weeds are controlled by park maintenance staff.

Fish

As described in Section 3.2 (*Surface Water and Water Quality*), the study area is in the Lake Washington/Cedar/Sammamish Watershed (WRIA 8) and within the 4th field HUC 17110012 (Lake Washington). Aquatic habitats include a portion of the Lake Washington shoreline. A

detailed description of the physical characteristics of the shoreline is provided in Section 3.5 (*Shorelines*). No open streams exist within the study area. Any historic streams within the study area have been piped.

The nearest classified stream is Meydenbauer Creek, a Type F stream, located approximately 1,000 feet to the south. As defined in the regulatory setting section, the City of Bellevue classifies streams into four categories: Type S, Type F, Type N, and Type O (City of Bellevue 2009). Type F streams contain fish or fish habitat.

As described in Section 3.2 (*Surface Water and Water Quality*), only stormwater outfalls exist within the limits of the study area. Other than the water quality vault (wet vault) installed in conjunction with the Meydenbauer Bridge Replacement Project (see Section 3.2.1.1), there are no stormwater treatment facilities within the study area. Untreated stormwater runoff drains directly to Meydenbauer Bay. Potential effects of untreated stormwater runoff on fish include, but are not limited to, the inability to avoid predators and disruption of olfactory navigation (WSDOT 2007). Stormwater pipes located within the western portion of Meydenbauer Beach Park drain an area that historically flowed as a perennial stream and is a component of the project alternatives.

Lake Washington supports a community of native aquatic species including, but not limited to, anadromous and resident fish species (King County 2003). Many stocks of the wild salmonid population in the Cedar-Sammamish Watershed, as well as in the Puget Sound ecoregion, have declined significantly (King County 2003). The fisheries community in the Cedar-Sammamish Watershed comprises both native and nonnative species. The historically important and current fishery is dominated by Chinook (*Oncorhynchus tshawytscha*), sockeye (*O. nerka*), and coho salmon (*O. kisutch*); and kokanee (*O. nerka*), steelhead (*O. mykiss*), rainbow (*O. mykiss*), and coastal cutthroat trout (*O. clarki clarki*), as well as bull trout (*Salvelinus confluentus*).

Potential spawning habitat for sockeye salmon may be present off the shore of Meydenbauer Bay Beach Park as indicated by WDFW maps created 10 years ago (as cited by TWC 2008). Beach-spawning sockeye at Meydenbauer Beach Park and Clyde Beach Park were documented in the mid 1990s (pers. comm., K. Paulsen 2009); however, it is not clear if sockeye still use this area (TWC 2008).

Additionally, 24 nonnative fish species have been introduced into the Cedar-Sammamish Watershed, creating numerous new trophic interactions with native species (King County 2003). As described in the Lake Washington Existing Conditions Report prepared for King County (2003), abundant resident fish include common carp (*Cyprinus carpio*) and yellow perch (*Perca flavenscens*); and common nonnative piscivorous fish include: black crappie (*Pomixis migromaculatus*), bluegill (*Lepomis macrochirus*), largemouth bass (*Micropterus salmoides*), and smallmouth bass (*M. dolomieui*).

Threatened and Endangered Species

This section provides information on federally listed threatened and endangered species potentially in the study area. Federally listed threatened and endangered species documented in the study area are summarized in Table 3.3-1.

Table 3.3-1. Federally Listed Threatened and Endangered Species in the Study Area.

Common Name (*Scientific Name*) ESU/DPS	Federal Status	Critical Habitat	WA/City Status	Occurrence Habitat Use
NMFS Jurisdiction				
Chinook salmon (*Oncorhynchus tshawytscha)* Puget Sound ESU	Threatened 6/28/05 (70 FR 37160)	Designated 9/2/05 (70 FR 52630)	SC/SOI	Migration only
Steelhead trout (*Oncorhynchus mykiss)* Puget Sound DPS	Threatened 5/11/07 (72 FR 26722)	under development	none	Migration only
USFWS Jurisdiction				
Bull trout (*Salvelinus confluentus)* Coastal-Puget Sound DPS	Threatened 11/1/1999 (64 FR 58910)	Designated 9/26/05 (70 FR 56212)	SC/SOI	Migration only

ESU = Evolutionarily Significant Unit; DPS = Distinct Population Segment; SC =State Candidate; SOI = Species of Importance; FR = Federal Register.
Sources: NMFS 2009, USFWS 2009, WDFW 2009, StreamNet 2009.

Puget Sound Chinook Salmon

The Puget Sound Evolutionarily Significant Unit (ESU) of Chinook salmon is listed as threatened by NMFS. Lake Washington is designated critical habitat for the Puget Sound Chinook ESU (70 Federal Register [FR] 52630). From 1968 to 1997, the Cedar-Sammamish Watershed supported an average yearly total run of approximately 9,600 adult Chinook salmon. This number represents the fish returning to the river and those that were harvested. However, total returns for naturally produced fish during the past 9 years have averaged less than 550 adult fish. Returns of naturally produced Chinook salmon to the Cedar-Sammamish Watershed have declined just as they have in many of the other Puget Sound drainage basins (Kerwin 2001). The Cedar River run Chinook salmon escapement data have been compiled by King County (pers. comm., H. Berge 2009). Recent data from 1998 to 2008 are summarized in Table 3.3-2. The numbers of Cedar River run Chinook salmon show a gradual increase in adults. The escapement goal for the Cedar River is 1,250 adults (pers. comm., H. Berge 2009).

Table 3.3-2. Cedar River Run Chinook Salmon Escapement Data 1998-2008.

Return Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Adult Chinook	432	241	120	810	369	545	575	518	1,066	1,730	788

Note: These data are derived from under the curve escapement estimates.
Source: pers. comm., H. Berge 2009.

Chinook salmon in Lake Washington and Meydenbauer Bay exhibit an ocean-type life history. Adult Chinook salmon return to natal streams from July through October, with the peak in mid August through September. According to StreamNet (2009), adult Chinook salmon use Lake Washington for migration only. Adult Chinook salmon may stage in Meydenbauer Bay as they return to their natal streams. Adult salmon that may be migrating through Lake Washington are typically in deeper offshore habitats (LWGI 2008).

Juvenile Chinook salmon emigrate from their natal streams as fry from early January through March. Juvenile Chinook salmon spend a few months in freshwater before migrating to saltwater in May or June (Shared Strategy 2005). This is when juveniles are small in size and dependent on the shoreline and cannot feed offshore.

Most juvenile fish then rear in Lake Washington and Meydenbauer Bay for several months before moving into Puget Sound. Juvenile Chinook salmon use Meydenbauer Bay for rearing and outmigration and were documented by WDFW during fish surveys (pers. comm., K. Paulsen 2009).

Puget Sound Steelhead

The Puget Sound Distinct Population Segment (DPS) of steelhead is listed as threatened by NMFS. Critical habitat has not been designated but is currently under development by NMFS. The Cedar-Sammamish Watershed winter steelhead stock has been characterized as depressed. Population declines began in the mid-1980s, similar to other Puget Sound winter steelhead stocks. These declines have been attributed to many factors, including degraded habitat, harvest, and largely to a change in ocean conditions. However, escapement estimates from recent years indicate an upward trend in returns, except for poor returns in 2000 and 2001 (Kerwin 2001). According to StreamNet (2009), steelhead use Lake Washington for migration only. Steelhead trout in the Lake Washington basin spawn from February through May. Juvenile steelhead trout migrate in April and May (LWGI 2008). This is when juveniles are small in size and dependent on the shoreline and cannot feed offshore. Adult steelhead may use Meydenbauer Bay for staging as they return to their natal streams. Adult salmon that may be migrating through the lake are typically in deeper offshore habitats. Juvenile steelhead may use Meydenbauer Bay for outmigration or rearing.

Coastal-Puget Sound Bull Trout

The Coastal-Puget Sound DPS of bull trout is listed as threatened by the USFWS. Lake Washington is mapped as bull trout critical habitat (70 FR 56309). There are known reproducing populations of both adfluvial and stream-resident bull trout in the upper Cedar River, in and above Lake Chester Morse (Berge and Mavros 2001). Adfluvial populations spend much of their lives in lakes but spawn and rear in streams. The stream-resident populations complete their entire life history in streams. Bull trout have been observed in the lower Cedar River below Landsberg (Berge and Mavros 2001). Surveys were conducted in 2001 and 2002 in tributaries to the lower Cedar River to determine if a self-sustaining population exists in the lower Cedar River watershed. With the exception of the population located within the upper Cedar River Municipal Watershed, no self-sustaining bull trout populations have been identified to date in the Lake Washington basin (King County 2000). Temperatures in most tributaries of the lower Lake Washington system are considered to be too warm to support bull trout juveniles and spawners. However, adult bull trout may stray into Lake Washington to forage during the winter and early spring when water temperatures are cold. Adults may migrate into tributaries within the basin during the fall to spawn if water temperatures have dropped to a suitable range (< 46.4°F) (WDFW 1998). No spawning habitat is present for the bull trout. Bull trout may be present in Meydenbauer Bay during the winter but are uncommon.

Sensitive Species

This section provides information on sensitive plant, wildlife, and fish species potentially using the study area. The City of Bellevue has designated a list of 23 species as Species of Local Importance in the critical areas code (LUC 20.20H.150 (A)). The Baseline Habitat and Vegetation Functional Analysis (EDAW 2008a) describes the potential presence of each species in the study area. For this section, the term sensitive species refers to federally listed species of

concern in King County, Washington state sensitive species, or City of Bellevue Species of Local Importance.

Plants

Using the King County list of rare plants from the Washington Natural Heritage Program (DNR 2009) and existing plant information collected from the Baseline Habitat and Vegetation Functional Analysis (EDAW 2008a) and Wetland Delineation (EDAW 2008b) reports, no special status plants or their habitats are present in the study area.

Fish and Wildlife

Sensitive fish and wildlife species, habitat associations, and potential species occurrence in Bellevue and the study area are summarized in Table 3.3-3.

3.3.1.2 Regulatory Setting

Federal

Future project work within the study area (e.g., project design, construction, and operation) would be subject to the following federal regulations relevant to protecting fish, wildlife, and their habitat:

- Endangered Species Act of 1973 (16 U.S. Code [USC] 1531-1544, as amended)
- Migratory Bird Treaty Act, 1918 (16 USC 703-712, as amended)
- Bald and Golden Eagle Protection Act, 1940 (16 USC 668a-d, as amended)
- Magnuson-Stevens Fishery Conservation Management Act, 1976 (Public Law 94-265, as amended)
- Clean Water Act, 1977 (33 USC 1251-1376, as amended)

Endangered Species Act

The Endangered Species Act (ESA) prohibits the incidental take of any federally listed species. Take is defined in the law to include harass and harm; harm is further defined to include any act that actually kills or injures a federally listed species, including acts that may modify or degrade habitat in a way that significantly impairs essential behavioral patterns of the species. Under Section 7 of the ESA, any federal agency that permits, funds, carries out, or otherwise authorizes an action is required to ensure that the action would not jeopardize the continued existence of listed species or result in the destruction or adverse modification of designated critical habitat. An incidental take permit, obtained through a formal Section 7 consultation with NMFS and/or USFWS, would be required if there is a potential for the project to adversely impact federally listed species or their critical habitat. Informal consultations occur for projects that result in a "not likely to adversely affect" determination; formal consultations occur for projects that are "likely to adversely affect" listed species.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) makes it unlawful, except as permitted by regulations, "to pursue, take, or kill…any migratory bird, or any part, nest or egg of any such bird, included in the terms of conventions" with certain other countries. The MBTA protects all active nests (eggs or young present) of designated migratory birds. If a problem with a specific nest is anticipated, permit requirements may be avoided by removing the nest or taking the appropriate

action during the non-breeding season while the nest is inactive (excluding eagles and endangered or threatened species).

The breeding season and dates when nests may be active varies by location and species, but, the presence of most North American raptors occurs between February 1 and August 31 (USFWS 2005). The most common bird species in the study area covered under the MBTA include the American robin and song sparrow.

Table 3.3-3. Study Area Sensitive Fish and Wildlife Species.

Common Name (*Scientific Name*)	Federal Status	WA/City Status	Habitat Association	Occurrence in Bellevue	Occurrence in Study Area
Fish					
Coho Salmon (*Oncorhynchus kisutch)* Puget Sound./ Strait of Georgia ESU	SOC MSA protected	NS/SOI	Low velocity streams, moderate threshold to degraded habitat	Documented	Migration
Coastal cutthroat trout (*Oncorhynchus clarki clarki)*	SOC	NS /SOI	Low to medium gradient streams	Documented	Migration
Pacific lamprey (*Lampetra tridentate)*	SOC	NS / NS	Low gradient streams with gravel deposits	Unconfirmed	Migration
River lamprey (*Lampetra ayresi)*	SOC	SC/SOI	Streams with gravel dominated riffles	Documented	Migration
Reptiles and Amphibians					
Western Toad (*Bufo boreas*)	SOC	SC/SOI	Wetlands	Rare	Unlikely
Birds					
Bald eagle (*Haliaeetus leucocephalus*)	SOC	SS/SOI	Mature forest near water, shorelines	Common	Occasional
Peregrine falcon (*Falco peregrines*)	SOC	SS/SOI	Open areas, cliffs, tall buildings and bridges	Rare	Rare
Pileated woodpecker (*Dryocopus pileatus*)	NS	SC/SOI	Mature forest, snags	Common	Occasional
Vaux's swift (*Chaetura vauxi*)	NS	SC/SOI	Mature forest, snags, chimneys	Unconfirmed	Rare
Merlin (*Falco columbarius*)	NS	SC/SOI	Mature forest, snags	Unconfirmed	Rare
Purple martin (*Progne subis*)	NS	SC/SOI	Mature forest, snags near water	Unconfirmed	Rare
Great blue heron (*Ardea herodias*)	NS	NS/SOI	Wetlands, shorelines	Common	Occasional
Osprey (*Pandion haliaetus*)	NS	NS/SOI	Forest near water, uses urban structures	Common	Occasional
Red-tailed hawk (*Buteo jamaicensis*)	NS	NS/SOI	Open forest and grasslands	Common	Occasional
Mammals					
Western big-eared bat (*Plecotus townsendii*)	SOC	SC/SOI	Caves, mines	Rare	Rare
Keen's myotis (*Myotis keenii*)	NS	SC/SOI	Forests, tree cavities, cliff crevices	Rare	Rare
Long-legged myotis (*Myotis volans*)	SOC	SM/SOI	Mature conifer forest, caves, rock outcrops	Rare	Rare
Long-eared myotis (*Myotis evotis*)	SOC	SM/SOI	Mature conifer forest, hollow trees, caves	Rare	Rare

SOC = Federal status species of concern; SC =State Candidate; SS = State Sensitive; SM = State Monitored; SOI = Species of Importance; NS=No status.
Sources: NMFS 2009, USFWS 2009, WDFW 2009, City of Bellevue 2003a and 2003b, Ehrlich et al. 1988, Good et al. 2005, Wydoski and Whitney 1979, Kan 1975.

Bald and Golden Eagle Protection Act

Administered by the USFWS, this law provides for the protection of the bald eagle and the golden eagle (*Aquila chrysaetos*) by prohibiting, except under certain specified conditions, the taking, possession, and commerce of such birds. Golden eagles are not likely to occur within the study area. Bald eagles, now delisted from the ESA, are primarily protected under the Bald and Golden Eagle Protection Act (Eagle Act). The Eagle Act prohibits unregulated take and makes it illegal to kill, wound, pursue, shoot, shoot at, poison, capture, trap, collect, molest, or disturb bald or golden eagles. If disturbance would occur in potential violation of the act, a permit to authorize take of eagles is required. Projects permitted under the Eagle Act do not need a permit under the MBTA.

Magnuson-Stevens Fishery Conservation Management Act

The Magnuson-Stevens Act (MSA) affords protection to Essential Fish Habitat (EFH), which may include streams, lakes, ponds, wetlands, other currently viable waterbodies, and most of the habitat historically accessible to salmon. Under the MSA, NMFS is required to provide EFH conservation and enhancement recommendations to federal and state agencies for actions that adversely affect EFH. Consultation with NMFS on effects on EFH would occur in conjunction with a Section 7 ESA consultation.

Clean Water Act

Impacts on jurisdictional wetlands or other waters would require a Section 404 permit from the Corps. For activities that may result in discharge to waters of the state or U.S., Section 401 of the CWA requires certification that the project would comply with water quality requirements and standards. Dredging, filling, and other activities that alter a waterway require a Section 404 permit and Section 401 certification. The appropriate state agency must also certify that the project meets state water quality standards and does not endanger waters of the state or U.S. or wetlands. In Washington state, 401 water quality certifications are issued by Ecology.

State

Future project work within the study area (e.g., project design, construction, and operation) would be subject to the following Washington state regulations relevant to protecting fish, wildlife, and their habitat:

- Habitat buffer zones for bald eagles, 1984 (RCW 77.12.655) and bald eagle protection rules, 1986 (WAC 232-12-292)
- Shoreline Management Act of 1971 (RCW 90.58, WAC 173-18-100, and WAC 173-22)
- Hydraulic Code, 1949 (Chapter 77.55 RCW)
- Fishways, flow, and screening, 1949 (RCW 77.57, as amended)
- Water Quality Certification (RCW 90.48, WAC 173-201A, and WAC 173-225)
- SEPA, 1971 (RCW 43.21C, WAC 197-11, and WAC 468-12)

Habitat Buffer Zones for Bald Eagles

Government agencies must notify the WDFW if a landowner is applying for a permit for a land-use activity that involves land containing or adjacent to an eagle nest or communal roost site.

WDFW would determine whether the proposed activity would adversely affect bald eagle nests or communal roosts sites; if so, a site management plan is required.

Shoreline Management

Under the Shoreline Management Act (SMA) (RCW 90.58), each city and county is required to adopt a shoreline master program that is based on state guidelines and that may be tailored to the specific geographic, economic, and environmental needs of the community. A permit would be required from the City of Bellevue for project activities occurring within 200 feet of the OHW mark of Lake Washington or within Lake Washington.

Hydraulic Code

The Hydraulic Code is intended to ensure that required construction activities are performed in a manner to prevent damage to the state's fish, shellfish, and their habitat. A Hydraulic Project Approval (HPA) from WDFW would be required for work occurring within waters of the state (defined as all salt and fresh waters waterward of the OHW mark and within the territorial boundary of the state).

Priority Habitats

WDFW has established priority habitat areas within the state. Priority habitats are those habitats with unique or significant value to many species (WDFW 2008). A priority habitat may be described by a unique vegetation type or by a dominant plant species that is of primary importance to fish and wildlife (e.g., freshwater wetlands and fresh deepwater, urban natural open space). A priority habitat may also be described by a successional stage (e.g., old-growth and mature forests). Alternatively, a priority habitat may consist of specific habitat features (e.g., talus slopes, snags) of key value to fish and wildlife. Washington has identified 18 priority habitat types.

Fish Passage Law

This law (RCW 77.57.030) and its implementing regulations (WAC 220-110-070) require that any dam or other obstruction across or in a stream shall be provided with a durable and efficient fishway approved by WDFW. The fishway must be maintained and continuously supplied with sufficient water to freely pass fish. Washington's fish passage regulations describe requirements for fish screens or bypasses when a lake, river, or stream containing game fish would be diverted, and for fishways if an obstruction would be placed in a stream. An HPA would be required (see *Hydraulic Code* above), and a permit from Ecology would be required if water is diverted.

Water Quality Certification

A 401 water quality certification would typically be obtained from Ecology via a joint permit application for impacts on wetlands and jurisdictional waters. Issuance of a certification means that Ecology anticipates that the applicant's project will comply with state water quality standards and other aquatic resource protection requirements under Ecology's authority. The 401 certification can cover both the construction and operation of the proposed project. Conditions of the 401 certification become conditions of the federal permit or license.

State Environmental Policy Act

SEPA requires all governmental agencies to consider the environmental impacts of a proposed action before making decisions. An EIS must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. Depending on the extent of the proposal and potential adverse impacts, SEPA may be satisfied by preparation of an environmental checklist and a determination of nonsignificance (DNS), or the proposal may be qualify as categorically exempt. State and local agencies may adopt or supplement existing SEPA documents or environmental documents prepared under the National Environmental Policy Act (NEPA) to fulfill SEPA requirements.

Local

Critical Areas Ordinance (City of Bellevue)

The CAO applies to habitat for any life stage of state or federally designated endangered, threatened, or sensitive fish or wildlife species; priority habitats and habitats of local importance; riparian management areas and riparian buffers; and water bodies. As described in Section 3.1 (*Earth*), the Critical Areas Ordinance also regulates development in geologic hazard areas; these areas do occur in the study area.

According to LUC 20.25H.075, closed stream segments do not have a critical area buffer but do require a 10-foot structure setback. The City's LUC does not specifically identify protocols for the "daylighting" of streams. If future daylighting of the stream segment is proposed, it is likely that the stream would be considered a Type N or F stream if the restored channel would support fish. Appropriately sized buffers would be established by the City as part of any overall restoration and daylighting plan. Buffers would be sized in consideration of adjacent properties.

As described in the CAO, the City of Bellevue classifies streams into four categories:

- **Type S Water**. All waters, within their bankfull width, as inventoried as "shorelines of the state" including periodically inundated areas of their associated wetlands (does not include shoreline critical areas).

- **Type F Water**. Segments of waters that are not Type S Waters, and that contain fish or fish habitat, including waters used by hatcheries.

- **Type N Water**. All segments of waters that are not Type S or Type F waters and that are physically connected to a Type S or F waters by an above ground channel system, stream, or wetland.

- **Type O Water**. All segments of waters that are not Type S, F, or N waters and that are not physically connected to Type S, F, or N waters by an above ground channel system, stream, or wetland. These segments are relatively rare but generally involve small streams that form from seeps and springs, run on the surface for a while and then disappear into the sediment without a direct connection to an existing stream or wetland.

Shoreline Management (City of Bellevue)

A Substantial Development Permit would be required for project activities occurring within areas regulated by the Shoreline Management Master Program.

3.3.2 Impacts

This section analyzes the effects of the project alternatives on plants and wildlife, fish, and their habitats within the study area; it includes a description of the methods and an analysis of environmental consequences. As stated in Chapter 2 (*Description of Alternatives*), because of the programmatic nature of the document, this analysis is generally qualitative.

3.3.2.1 Methods

This plants and animals resources analysis is based on guidance provided by WAC 197-11-960 (SEPA environmental checklist) regarding the identification, characterization, and mitigation of impacts on biological resources. The project alternatives were evaluated for their potential to affect plants or animals present in the vicinity of the study area. The No-Action Alternative is the baseline for evaluating effects on plants, wildlife, and fish distribution, abundance, and timing of presence.

Potential effects on plants and wildlife within the study area were assessed by evaluating terrestrial noise disturbances and habitat modification. Potential effects on fish resulting from the project alternatives were determined by assessing the potential changes in affected fish habitat that include the effects of sediment and turbidity, in-water work, underwater noise and vibration, overwater structures, shoreline modification, and stormwater. Table 3.3-4 provides a comparison of actions associated with the project alternative that may affect plants and animals and their habitats.

The significance of potential impacts on plants and animals was assessed based on the federal, state, and regulations addressing biological resources, as described in Section 3.3.1.2 (*Regulatory Setting*). A significant impact on biological resources would be one that is reasonably likely to result in a more than moderate adverse impact. The following factors were considered in determining the type, degree, and significance of impacts on plants and wildlife, fish, and their habitats:

- Effects on wetlands that are classified as jurisdictional under CWA Section 404.
- Effects on existing habitat connectivity (which could be further degraded or improved by future projects).
- Effects on migratory birds, as defined under the MBTA, such as noise and take of active nests and/or eggs, and effects on nesting habitat.
- Effects on listed species that would be subject to Section 7 ESA consultations conducted with the USFWS and/or NMFS for future projects.
- Effects on Pacific Salmon Fishery that would be analyzed in EFH consultations conducted with NMFS for future projects.
- Effects on the City's Species of Local Importance.

3.3.2.2 No-Action Alternative

Plants and Wildlife

Under the No-Action Alternative, short-term effects on plants and wildlife associated with project-specific development include construction noise. General construction-related terrestrial noise would be associated with heavy equipment, such as jack hammers, bulldozers, and backhoes.

Table 3.3-4. Comparison of Project Alternatives on Study Area Habitats.

Habitat	No-Action Alternative	Alternative 1	Alternative 2
Forested Ravine			
Forest and Open Space Connection	Expand park (approximately 8.5 acres total)	Expand park and connect shoreline to a new park plaza (approximately 9.5 acres total)	Expand park and connect shoreline to a new park plaza (approximately 9.5 acres total)
Stream Restoration	Retain stream in stormwater pipes through ravine	Daylight stream through park (approximately 1,300 lf)	Daylight stream between Lake Washington Blvd and the bay approximately (360 lf)
Wetlands			
Wetland Enhancement	Retain wetlands	Fill wetlands and replace near mouth of daylighted stream	Fill wetlands and replace near mouth of daylighted stream
Shoreline			
Armoring	Retain shoreline armoring	Restore 950 lf of shoreline	Restore 800 lf of shoreline
Park Pier	Retain public pier	New, relocated public pier	Retain public pier
Residential Docks	Remove 6 residential docks	Remove 6 residential docks	Remove 6 residential docks
Bellevue Marina	Retain Piers 1, 2, and 3	Remove roof from Pier 2 Remove Pier 3	Remove Piers 2 and 3 Provide new pier with elevated viewing platform and floating boardwalk
Overwater Cover	46,000 sq ft	22,000-23,000 sq ft	28,000-29,000 sq ft
Urban Environments			
Impervious Surface[1]	228,000 sq ft	250,000 sq ft	327,000 sq ft

Source: Prepared by EDAW.
1 = Calculations of impervious surfaces are based on proposed park and upland parcel components for each project alternative. In addition there is an assumption that the potential redevelopment areas would be 75% impervious surface (Hill et al. 2003).

Disturbance to migratory birds, potentially during nesting season, and modifications to nesting habitat may occur under the No-Action Alternative. Construction-related noise disturbance could result in reduced nesting success for migratory birds. In the long term, migratory birds would continue to use the area for nesting, roosting, foraging, and dispersal. Mammals such as raccoons, squirrels, and opossums would continue to use the small patches of habitat for feeding, reproduction, and dispersal. Construction effects would be limited in duration. Short-term

construction effects on plants and wildlife under the No-Action Alternative would likely be minimal and considered less than significant.

The long-term operational impact of the No-Action Alternative includes habitat modification. The potential redevelopment of two parcels north and south of Main Street would not affect plant or wildlife habitat over the long term as the sites are already developed. The redevelopment of nine residential parcels as park open space would expand the existing Meydenbauer Beach Park from approximately 3 acres to approximately 8.5 acres. The park expansion and native landscaping would provide a minor increase in natural areas and habitat connectivity. Under the No-Action Alternative, the existing wetlands would be retained. Overall, the No-Action Alternative would have a minor beneficial effect on plants and wildlife.

Fish

Under the No-Action Alternative, impacts on non-listed fish include the short-term effect of sediment and turbidity, in-water work, and underwater noise. Future project-specific development would disturb soil and sediment along the Meydenbauer Bay shoreline. If not properly managed, construction practices would increase turbidity and sedimentation in fish-bearing waters. Sedimentation and turbidity are primary contributors to the degradation of salmonid habitat (Bash et al. 2001). High levels of turbidity can reduce feeding efficiency and food availability, clog gillrakers, and erode gill filaments of salmonids (Bruton 1985; Gregory 1993).

In-water work includes removing residential docks. In-water or shoreline construction activities would generate intermittent short-term increases of in-water noise. No pile driving is likely for the No-Action Alternative. Construction effects would be limited in duration. Short-term construction effects on non-listed fish under the No-Action Alternative would likely be minimal and considered less than significant.

The long-term operational impact of the No-Action Alternative includes a reduction in overwater structures by removing six residential docks. Reducing overwater structures from 50,000 sq ft to 46,000 sq ft (Table 3.3-4) would be an incremental benefit to juvenile fish. The removal of existing impervious surface from the park expansion would have a minor beneficial effect on water quality given the fact that no stormwater treatment facilities exist within the study area. The presence of the public piers and armored shoreline in Meydenbauer Bay would continue to affect non-listed fish in the No-Action Alternative. Overall, the No-Action Alternative would be consistent with current non-listed fish impacts and considered less than significant.

Threatened and Endangered Species

Listed Chinook, steelhead, and bull trout share aquatic habitat with non-listed fish; therefore, short-term construction and long-term operation impacts on non-listed fish also apply to Chinook, steelhead, and bull trout. It is likely that future project-specific development under the No-Action Alternative would be able to comply with in-water work window guidelines for fish and be undertaken when listed fish species are not present. Therefore, handling of listed fish species is not expected. In addition, ESA compliance and consultation with the USFWS and/or NMFS would be initiated for future projects as applicable. Terms and conditions of a subsequent

biological opinion would minimize potential effects on listed species. Therefore, effects on threatened and endangered species are considered less than significant.

3.3.2.3 Alternative 1

Plants and Wildlife

Similar to the No-Action Alternative, short-term effects of construction noise associated with future project-specific development anticipated under Alternative 1 would likely be minimal and considered less than significant.

Similar to the No-Action Alternative, long-term operational impacts under Alternative 1 include habitat modification. More redevelopment in the upland parcels would occur under Alternative 1; however, because these areas are already developed, there would be no long-term effects on plant or wildlife habitat. Alternative 1 proposes redevelopment of nine residential parcels and the Bellevue Marina shoreline to park open space and the Bayvue Village Apartments (the west parcel) to a park entry plaza. Several mature trees would be removed in the study area, but new trees would be planted, which would provide some replacement habitat value. Redevelopment would expand the existing Meydenbauer Beach Park from approximately 3 acres to approximately 9.5 acres. Unlike the No-Action Alternative, Alternative 1 would create a stream along the forested ravine that would potentially open up to 1,300 lf of new forested riparian habitat. The forest riparian habitat provides cover adjacent to water. In addition, the wetlands in the study area would be filled and replaced with an enhanced wetland located near the mouth of the new stream and riparian area. The additional water resource would increase the ecological value of the ravine (Johnson and O'Neil 2001). The park redevelopment and native landscaping would substantially increase natural areas and habitat connectivity compared to the No-Action Alternative. Overall, Alternative 1 would have a minor beneficial effect on plants and wildlife.

Fish

Similar to the No-Action Alternative, impacts associated with future project-specific development anticipated under Alternative 1 on non-listed fish include the short-term effects of sediment and turbidity, in-water work, and underwater noise. Future project-specific development would disturb soil and sediment along the Meydenbauer Bay shoreline. Like the No-Action Alternative, Alternative 1 in-water work includes removing residential docks; it also includes daylighting a stream through the park, restoring 950 lf of shoreline, and reducing the overwater cover (Table 3.3-4). Although 950 lf is approximately 50 percent of the study area's shoreline, it is only 10 percent of the entire Meydenbauer Bay shoreline. Restoring shoreline habitat would benefit juvenile salmon rearing habitat as well as provide the opportunity for sockeye salmon spawning habitat that was historical present.

In-water or shoreline construction activities would generate intermittent, short-term increases of in-water noise. Pile driving is likely for Alternative 1. Specific project-level details of pile driving activities such as pile installation method, pile diameter, or type are not available. Underwater noise and vibration from pile driving and the potential for fish kills are of concern to both NMFS and USFWS (WSDOT 2008). Various measures have been developed to reduce underwater noise generated by pile driving and reduce potential adverse effects on aquatic organisms. These measures would likely be a condition of any necessary in-water work permit or

approval. Construction effects would be limited in duration. Short-term construction effects on non-listed fish under Alternative 1 would likely be minimal and considered less than significant.

The long-term operational impact of Alternative 1 includes reducing overwater structures by removing six residential docks and Pier 3, along with the addition of a new public pier. Overwater structures would be reduced to approximately 22,000 to 23,000 sq ft, compared with 46,000 sq ft under the No-Action Alternative. This is an incremental benefit to fish. Overwater structures and armored banks remove shallow water habitat, which juvenile salmonids rely on for forage opportunities and refuge from predation, and create a homogenous shoreline compared to the complex habitats preferred by salmonids (Roni and Quinn 2001). Conversely, smallmouth bass, a common predator of juvenile salmonids, prefer homogenous shoreline structures associated with deep water (Tabor et al. 2007), habitat characterized by overwater structures. There are also potential opportunities to improve sockeye salmon beach spawning attraction and habitat by providing clean water upwelling from treated stormwater or non-pollutant generating sources of stormwater in the relocated swimming beach.

Both the reduction of overwater structures and restoration of the shoreline to mimic natural shallow water habitat would have a beneficial effect on juvenile salmonids. The restoration of a stream along the forested ravine would potentially open up to 1,300 lf of new fish habitat. The removal of existing impervious surface would have a minor beneficial effect on water quality, given the fact that no stormwater treatment facilities exist within the study area. Overall, Alternative 1 would have a beneficial effect on fish.

Threatened and Endangered Species

Listed Chinook, steelhead, and bull trout share aquatic habitat with non-listed fish; therefore, short-term construction and long-term operation impacts on non-listed fish also apply to Chinook, steelhead, and bull trout. ESA compliance and consultation with the USFWS and/or NMFS would be initiated on future projects as applicable. Similar to the No-Action Alternative, terms and conditions of a subsequent biological opinion would minimize potential effects on listed species. Of the alternatives proposed, Alternative 1 has the greatest aquatic habitat improvements and ecological benefits. Under Alternative 1, there would be a long-term minor beneficial effect on listed Chinook, steelhead, and bull trout**.**

3.3.2.4 Alternative 2

Plants and Wildlife

Similar to the No-Action Alternative and Alternative 1, future project-specific construction associated with Alternative 2 would create short-term effects of construction noise would likely be minimal and considered less than significant.

Similar to the No-Action Alternative and Alternative 1, Alternative 2 long-term operational impacts include habitat modification. Upland redevelopment would be comparable to Alternative 1; because those areas are already developed, there would be no long-term effects on plant or wildlife habitat. Similar to Alternative 1, Alternative 2 proposes redevelopment of nine residential parcels and the Bellevue Marina shoreline to park open space and the Bayvue Village Apartments to a park entry plaza. As in Alternative 1, several mature trees would be removed in the study area, but new trees would be replanted, which would provide some replacement habitat

value. The redevelopment would expand the existing Meydenbauer Beach Park from approximately 3 acres to approximately 9.5 acres. Similar to Alternative 1, Alternative 2 proposes the restoration of a stream along the forested ravine. However, Alternative 2 proposes to open up only 360 lf of new forested riparian habitat, about a third of the extent proposed under Alternative 1. The forest riparian habitat provides cover adjacent to water. In addition, the wetlands in the study area would be filled and replaced with an enhanced wetland located near the mouth of the new stream and riparian area. The park redevelopment and native landscaping would increase natural areas and habitat connectivity, substantially greater than the No-Action Alternative and less than Alternative 1. Overall, Alternative 2 would have a nominal beneficial effect on plants and wildlife.

Fish

Similar to the Alternative 1, impacts on non-listed fish include the short-term effect of sediment and turbidity, in-water work, and underwater noise. Future project construction would disturb soil and sediment along the Meydenbauer Bay shoreline. Alternative 2 in-water work includes removing six residential docks and Piers 2 and 3, along with the expansion of Pier 1 and the addition of a new pier and floating boardwalk. Alternative 2 also includes daylighting a stream through the park, restoring 800 lf of shoreline (compared with 950 lf in Alternative 1), and reducing the overwater cover (Table 3.3-4). Although 800 lf is approximately 43 percent of the study area's shoreline, it is only 8 percent of the entire Meydenbauer Bay shoreline. Restoring shoreline habitat would benefit juvenile salmon as well as provide an opportunity for sockeye salmon spawning habitat that was historical present.

In-water or shoreline construction activities would generate intermittent, short-term increases in in-water noise. Similar to Alternative 1, pile driving is likely for Alternative 2. Construction effects would be limited in duration. Short-term construction effects on non-listed fish under Alternative 2 would likely be minimal and considered less than significant.

The long-term operational impact of Alternative 2 includes reduction in overwater structures by removing six residential docks and Piers 2 and 3, along with the addition of a new pier and floating boardwalk. Overwater structures would be reduced to approximately 28,000 to 29,000 sq ft, compared with 46,000 sq ft under the No-Action Alternative. This is an incremental benefit to fish. Both the reduction of overwater structures and restoration of the shoreline to mimic natural shallow water habitat would have a beneficial effect on juvenile salmonids and decrease predation. The restoration of a stream along the forested ravine would potentially open up to 360 lf of new fish habitat. The removal of existing impervious surface would have a beneficial effect on water quality given the fact that no stormwater treatment facilities exist within the study area. As with Alternative 1, there are also potential opportunities to improve beach spawning attraction and habitat by providing clean water upwelling from treated stormwater or non-pollutant generating sources of stormwater in the relocated swimming beach. Overall, Alternative 2 would have a beneficial effect on fish, but less than Alternative 1.

Threatened and Endangered Species

Listed Chinook, steelhead, and bull trout share aquatic habitat with non-listed fish; therefore, short-term construction and long-term operation impacts on non-listed fish also apply to Chinook, steelhead, and bull trout. ESA compliance and consultation with the USFWS and/or

NMFS would be initiated for future projects as applicable. Similar to the No-Action Alternative, terms and conditions of a subsequent biological opinion would minimize potential effects on listed species. Of the alternatives proposed, Alternative 2 provides moderate aquatic habitat improvements and ecological benefits that are greater than the No-Action Alternative and less than Alternative 1. Under Alternative 2, there would be a long-term minor beneficial effect on listed Chinook, steelhead, and bull trout.

3.3.3 Mitigation Measures

The following measures to avoid, minimize, and offset potential adverse effects on plant, wildlife, and fish species and their habitats would be required, as applicable, during future project-level permit reviews and approvals:

- Implementation of a Temporary Erosion and Sedimentation Control (TESC) plan to contain loose soil and to minimize the risk of soil becoming waterborne.

- Development of a Stormwater Pollution Prevention (SWPP) plan as required by the National Pollutant Discharge Elimination System (NPDES) construction stormwater permit in compliance with the Clean Water Act.

- Construction waterward of the OHWM would be scheduled to meet the WDFW in-water work window to avoid disturbance when the majority of juvenile Chinook salmon and steelhead would be moving past construction zones. In-water work windows would be determined during consultation with the USFWS, NMFS, and WDFW. The published allowable work window for hydraulic projects in Lake Washington between I-90 and SR 520 is July 15 to April 30 (WDFW 2005).

- Consultation would be undertaken with NMFS and USFWS prior to future project construction to ensure that appropriate measures are implemented to protect any ESA-listed species such as Chinook, steelhead, and bull trout in the study area. Terms and conditions may include underwater noise attenuation measures and construction stormwater treatment facilities.

3.3.4 Summary of Impacts

Implementation of the project-specific development anticipated under the alternatives would have relatively minor impacts on plants, animals, habitat, and threatened or endangered species in the study area. Impacts would occur both over the short term (associated with construction activities), as well as over the long term (associated with permanent changes to habitat conditions). In the short term, construction-related noise could disturb wildlife species that occur in the study area. This disturbance may disrupt wildlife breeding, foraging, or migrating behavior in construction areas when crews are working. Such impacts would be slightly more pronounced under the action alternatives relative to the No-Action Alternative, given the greater level of development proposed; however, such impacts are considered nominal and insignificant under all project alternatives. Short-term impacts on fish would also be associated with in-water work, including short-term increases in underwater noise, sediment, and turbidity. More in-water work is proposed under the action alternatives relative to the No-Action Alternative, such as the use of pile placement. Assuming that all work would occur during the established in-water work

windows and employ appropriate BMPs, as well as consultation with the USFWS and NMFS, resulting impacts are all considered minor. Over the long term, most anticipated impacts are expected to be beneficial, in the form of general habitat improvements. Both action alternatives would include expanding the acreage of open space and park land, representing a relatively minor increase in potential wildlife habitat for common species such as small mammals and migratory birds. In addition, both action alternatives include wetland and stream habitat restoration efforts with associated water quality and habitat improvements and reduced shoreline armoring, with incrementally more benefits associated with Alternative 1. Such restoration efforts would be particularly beneficial to nearshore fish and wetland-dependent species. Another benefit of all of the project alternatives is the reduction of overwater structures and cover, which would represent a slight improvement in habitat for juvenile fish. Such improvements are greatest under Alternative 1 (a reduction from 50,000 square feet to 22,000-23,000 square feet), followed by Alternative 2 (a reduction to 28,000-29,000 square feet), and the No-Action Alternative (a reduction to 46,000 square feet).

In summary, the project-specific development anticipated under the alternatives would result in no significant unavoidable adverse impacts on plants or animals in the study area. Both Alternatives 1 and 2 would provide long-term minor beneficial effects on plants and animals, which are more than the minor beneficial effects of the No-Action Alternative. Alternative 1 has the greatest ecological benefit on plants and animals of all three alternatives.

3.4 LAND USE

This section covers existing land use character, current development patterns, and land use policies and regulations applicable to the study area. This provides the context for analyzing changes that could be expected to result from the implementation of the project alternatives.

3.4.1 Affected Environment

3.4.1.1 Existing Conditions

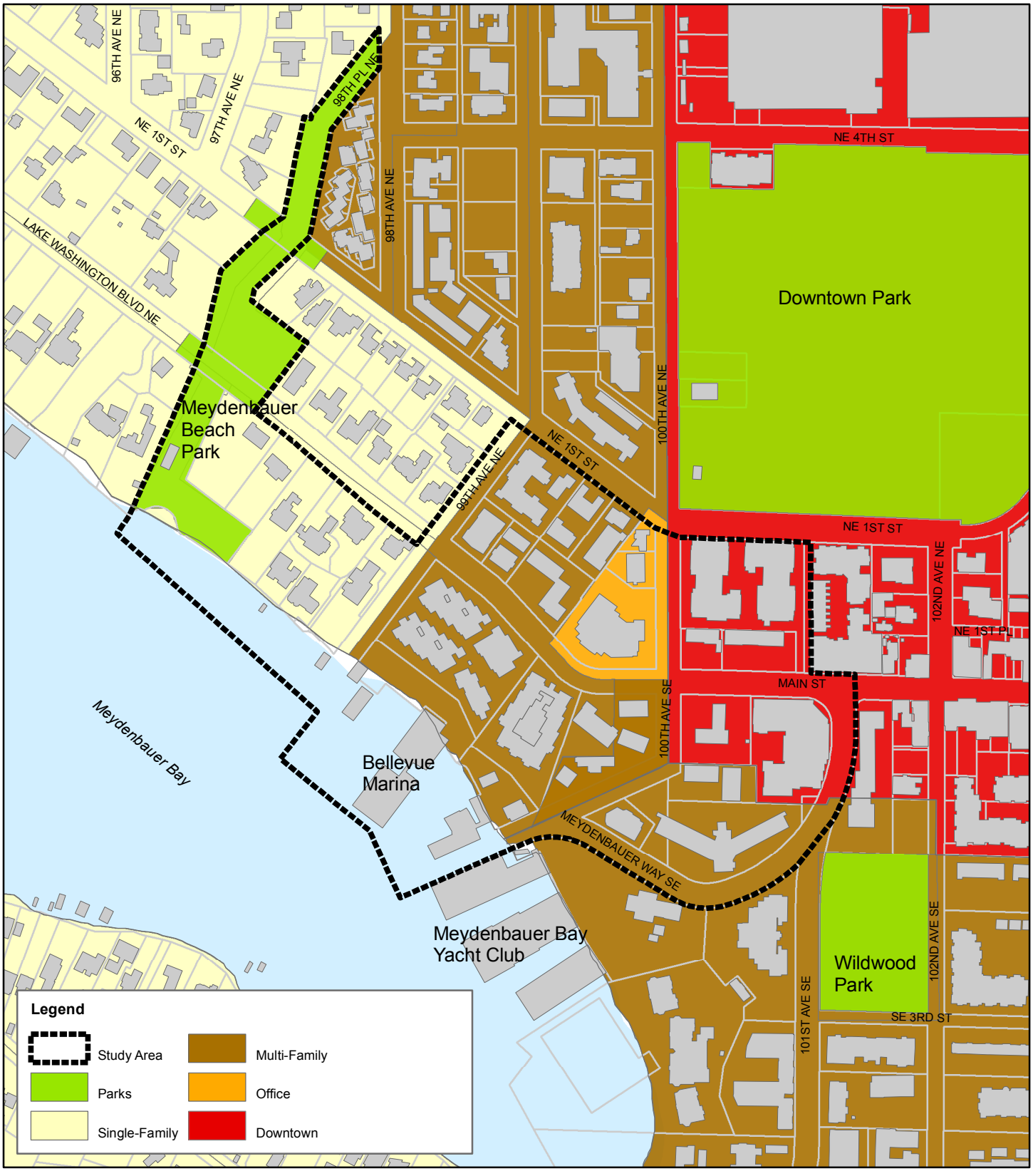
The study area lies at the intersection of single-family residential, multi-family residential, and downtown neighborhoods. Accordingly, the study area and nearby properties include a mix of uses, including public uses (e.g., Meydenbauer Beach Park and Bellevue Marina) and private uses (e.g., residential and commercial development). Much of the property within the study area is owned by the City of Bellevue, including the park, the marina, nine single-family residences southeast of the park, three duplexes, two parcels containing the Bayvue Village Apartments, and two street rights-of-way that end at the lakeshore. The study area also includes parcels not owned by the City; these parcels provide connections and transitions between the urban core and Meydenbauer Bay and the park. Existing land uses (Figure 3.4-1) in the study area and vicinity include single-family, multi-family, commercial, and civic/institutional, as described below.

Single-Family

The portion of the study area that lies between 99th Avenue NE and Meydenbauer Beach Park, as well as adjacent properties to the north and west, are developed as larger single-family homes on roughly quarter-acre lots. With the exception of some newer larger homes, mature tree canopy and landscaping surround the homes. The southern portion of Meydenbauer Bay (across from the study area) is defined by a steeply sloped peninsula that is also developed with larger single-family homes surrounded by mature landscaping and tree canopy. Because of the slope of both the southern peninsula and the study area, these single-family neighborhoods are oriented toward the bay and each other and characterize the entrance to Meydenbauer Bay (Figure 3.4-2).

Multi-Family

Multi-family development in the form of apartments and condominiums occupies much of the study area and surrounding properties, primarily east of 99th Avenue NE and continuing around the east end of Meydenbauer Bay. In addition, multi-family development exists west of 100th Avenue NE, north of NE 1st Street, between the downtown and single-family areas farther west and north. Multi-family development is also found in nearby parts of the downtown area. Much of the block bounded by 99th Avenue NE, NE 1st Street, 100th Avenue NE, and Lake Washington Boulevard NE is dominated by low-rise multi-family structures, developed mainly between the 1970s and 1990s. Heights range from two to five stories. Structures in this area are primarily set back from the street with street frontage dominated by parking, screen walls, and some landscaping. Some recent renovation and redevelopment has occurred within this area as apartments have been converted into condominiums. The area lying south of Lake Washington Boulevard and Main Street, between 99th Avenue NE and 101st Avenue SE, contains several condominium and apartment buildings located within the study area. Some of these apartment buildings are owned by the city, while the remainder are privately owned (Figure 3.4-2).



Source: City of Bellevue GIS 2009

Figure 3.4-1: Existing Land Use

Meydenbauer Bay Park and Land Use Plan EIS
City of Bellevue

Older Multi-Family

Vue Condominium

Whaler's Cove Condominium

Tantallon Office Building

Existing Single-Family

Study Area with Downtown Behind

Figure 3.4-2: Land Use Photos.

Commercial

At the intersection of 100th Avenue NE and Main Street, the eastern corners are occupied by single-level commercial structures and associated parking. A fuel and auto service station is located on the southeast corner. Office buildings front the west side of 100th Avenue NE between Lake Washington Boulevard and NE 1st Street.

The several blocks of Main Street east of the study area are dominated by one- and two-story retail buildings situated close to sidewalks, creating a pedestrian-oriented retail environment. Businesses are located in smaller individual structures, creating a finer-grained development pattern and mix of use compared to the larger structures typical of surrounding newer development. The Main Street corridor occupies the southern edge of Bellevue's downtown, which reaches north to NE 12th Street and east to I-405 (Figure 3.4-3).

Civic

The southeast edge of the study area abuts Wildwood Park, which consists of a lawn area along 101st Avenue SE, used for passive recreation, and a larger, thickly forested area, on the remainder of the site. The private Meydenbauer Bay Yacht Club is located south of Meydenbauer Way SE. Bellevue Marina is a public marina, owned by the City of Bellevue. Meydenbauer Beach Park provides forested and lawn areas, as well as a public pier and swimming beach (Figure 3.1-3).

Surrounding Area Land Use Context

The study area occupies a transition zone between downtown Bellevue and surrounding residential neighborhoods. Downtown Park is located north of the study area and is described in more detail in Section 3.6 (*Parks and Recreation*). Bellevue's original downtown, Old Bellevue, is located to the east. Main Street has maintained a traditional pedestrian-oriented character, with smaller buildings located close to the street. The mid- and high-rise commercial and residential core of downtown is located to the northeast of the study area. Redevelopment over the last decade has dramatically changed the scale and character of downtown.

As property values have increased, there has been economic incentive to increase lot coverage and building volume. In the lakeside neighborhoods close to the study area, redevelopment of existing single-family houses has generally trended toward larger homes. Within and adjacent to the study area, increased land values have meant that multi-family redevelopment has targeted an increasingly affluent market. These newer structures also reflect a more urban character and scale, compared to the older mid-rise, more suburban scale of the existing multi-family residences. Generally, they represent greater intensity in terms of height and lot coverage. Adjacent single-family neighborhoods have also experienced some transformation, with many older residences being replaced by larger, more elaborate residences.

Land use in the study area and the surrounding area reflects a trend toward more intensive, urban development patterns, with smaller areas of associated open space. The study area is located at the intersection of several planning areas, described below.

Population, Housing, and Employment

The area of Bellevue adjacent to and including the study area has seen considerable redevelopment over the last decade. New buildings and multi-building complexes have added substantial retail and commercial square footage throughout downtown. Construction of new multi-family residences has steadily increased the population of downtown. Within the study area, there are approximately 650 dwelling units (including some under construction) (City of Bellevue 2008b). Based on a standard assumption of 1.5 residents per dwelling unit, the corresponding population is approximately 1,000 residents. Since the study area is not physically separated from adjacent residential neighborhoods, these populations should not be considered distinct.

Similarly, the study area should not be considered a distinct employment zone. The approximately 60,000 net square feet (nsf) of commercial/retail space within the study area includes part of the Main Street retail corridor.

3.4.1.2 Regulatory Setting

State

Washington State Growth Management Act

The Growth Management Act (GMA) was enacted in 1990 to provide a comprehensive regulatory framework to guide land use planning throughout the state. The legislation provides a series of general planning goals that are applicable statewide, while directing the development of more detailed local comprehensive plans which could be responsive to the specific needs of the planning jurisdictions. Cities are obligated to develop comprehensive plans which include a range of mandatory and optional elements. Required elements include land use, housing, and capital facilities (RCW 36.70A).

Overall planning goals of the GMA include the following:

- **Urban growth**. Encourage development in urban areas where adequate public facilities and services exist or can be provided in an efficient manner.

- **Transportation.** Encourage efficient multimodal transportation systems that are based on regional priorities and coordinated with county and city comprehensive plans.

- **Housing**. Encourage the availability of affordable housing to all economic segments of the population of this state, promote a variety of residential densities and housing types, and encourage preservation of existing housing stock.

- **Property rights**. Private property shall not be taken for public use without just compensation having been made. The property rights of landowners shall be protected from arbitrary and discriminatory actions.

- **Open space and recreation**. Retain open space, enhance recreational opportunities, conserve fish and wildlife habitat, increase access to natural resource lands and water, and develop parks and recreation facilities.

Meydenbauer Bay Yacht Club

Bellevue Marina

Covered Moorage at Bellevue Marina

Old Bellevue Main Street

Retail Transition

Newer Mixed-Use Structure

Figure 3.4-3: Land Use Photos.

- **Environment**. Protect the environment and enhance the state's high quality of life, including air and water quality, and the availability of water.

- **Citizen participation and coordination**. Encourage the involvement of citizens in the planning process and ensure coordination between communities and jurisdictions to reconcile conflicts.

- **Public facilities and services**. Ensure that those public facilities and services necessary to support development shall be adequate to serve the development at the time the development is available for occupancy and use without decreasing current service levels below locally established minimum standards.

- **Historic preservation**. Identify and encourage the preservation of lands, sites, and structures that have historical or archaeological significance.

State Environmental Policy Act

As described in more detail in Section 3.1.1.2 (*Regulatory Setting*), SEPA requires all governmental agencies to consider the environmental impacts of a proposed action before making decisions.

Local

Policy and Comprehensive Plan

Policies are set forth in the City of Bellevue Comprehensive Plan (City of Bellevue 2008a). The study area is located at the convergence of the North Bellevue, Downtown, and Southwest Bellevue planning subareas. These subareas have different goals; planning within the study area provides an opportunity to review the convergence of these subareas and create a smoother transition among them by thoughtful amendment of specific subarea policies.

The primary goals of the three relevant subarea plans (Figure 3.4-4) are listed below.

North Bellevue Subarea Plan Goal:

To protect the predominantly single-family character of North Bellevue from encroachment by other uses.

Downtown Bellevue Subarea Plan Goal:

The Great Place Strategy
To remain competitive in the next generation, Downtown Bellevue must be viable, livable, memorable, and accessible. It must become the symbolic as well as functional heart of the Eastside Region through the continued location of cultural, entertainment, residential, and regional uses located in distinct, mixed-use neighborhoods connected by a variety of unique public places and great public infrastructure.

Southwest Bellevue Subarea Plan Goals:

- To provide for land use patterns and densities that minimize the conflict between zoning and existing land use.

- To protect and maintain the single-family residential neighborhoods through the application of zoning.
- To maintain a variety of residential areas of different densities and housing types so that a range of housing opportunities will be available.
- To preserve the residential land uses at the entrances to residential neighborhoods such as Surrey Downs.

In addition to policies set forth in the citywide planning framework, the City Council adopted a set of planning principles specifically intended to guide development in the Meydenbauer Bay Park and Land Use Plan study area (City of Bellevue 2007).

The 12 principles are listed in full in Section 3.6 (*Parks and Recreation*). In general, the principles support land use changes that achieve the following:

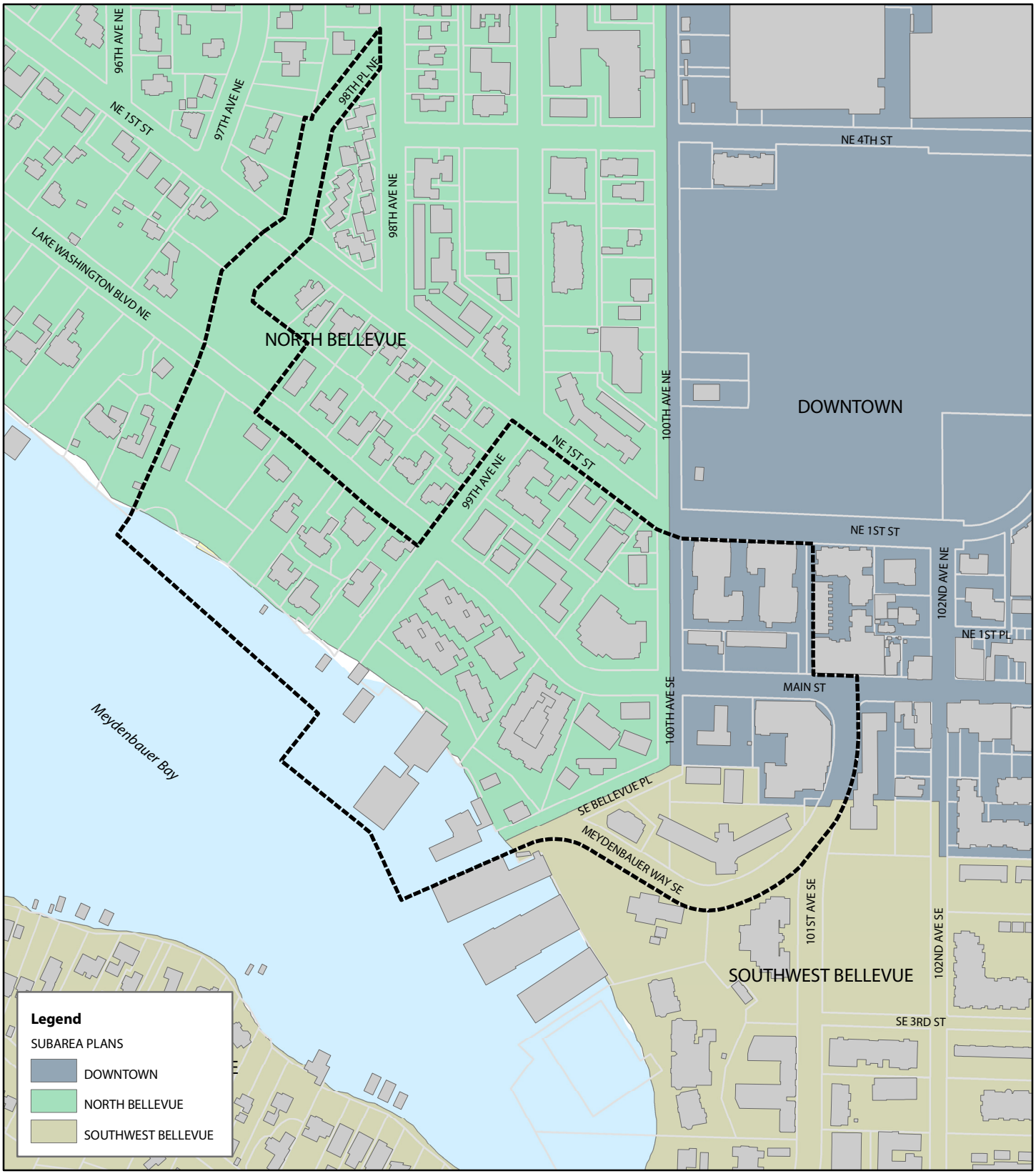
- Creation of a multi-use waterfront park of civic significance.
- Establishment of a strong visual and pedestrian connection to Downtown Park.
- Development of complementary land uses that provide an appropriate transition from upland neighborhoods to the shoreline park.

Zoning

Land use within the study area is regulated by City of Bellevue Land Use Code (LUC). The study area includes property lying within four different land use districts (Figure 3.4-5). A large portion of the study area, including part of the shoreline area, is zoned R-30, multi-family residential. Zoning steps down in density and development intensity at the northwest corner of the study area from R-30 to R-3.5, providing a transition into adjacent areas designated for single-family development. The northwestern part of the study area waterfront is zoned single-family on both sides of Lake Washington Boulevard, and adjacent to Meydenbauer Beach Park. A small portion of the study area is zoned O, office zone, a medium-intensity buffer between residential and more intensive commercial zones, and the northeast portion is zoned DNTN-OB, (Downtown – Old Bellevue). A more detailed description of the land use district designations follows.

- **Single-Family: R-3.5**. The northern part of the study area is zoned single-family northwest of 99th Avenue and southeast of Meydenbauer Beach Park. The intent of this land use district is to provide for low to moderate density housing and compatible related activities. City parks are generally permitted, but Lake Washington beachfront parks and certain other park uses are conditionally permitted (LUC 20.10.440).

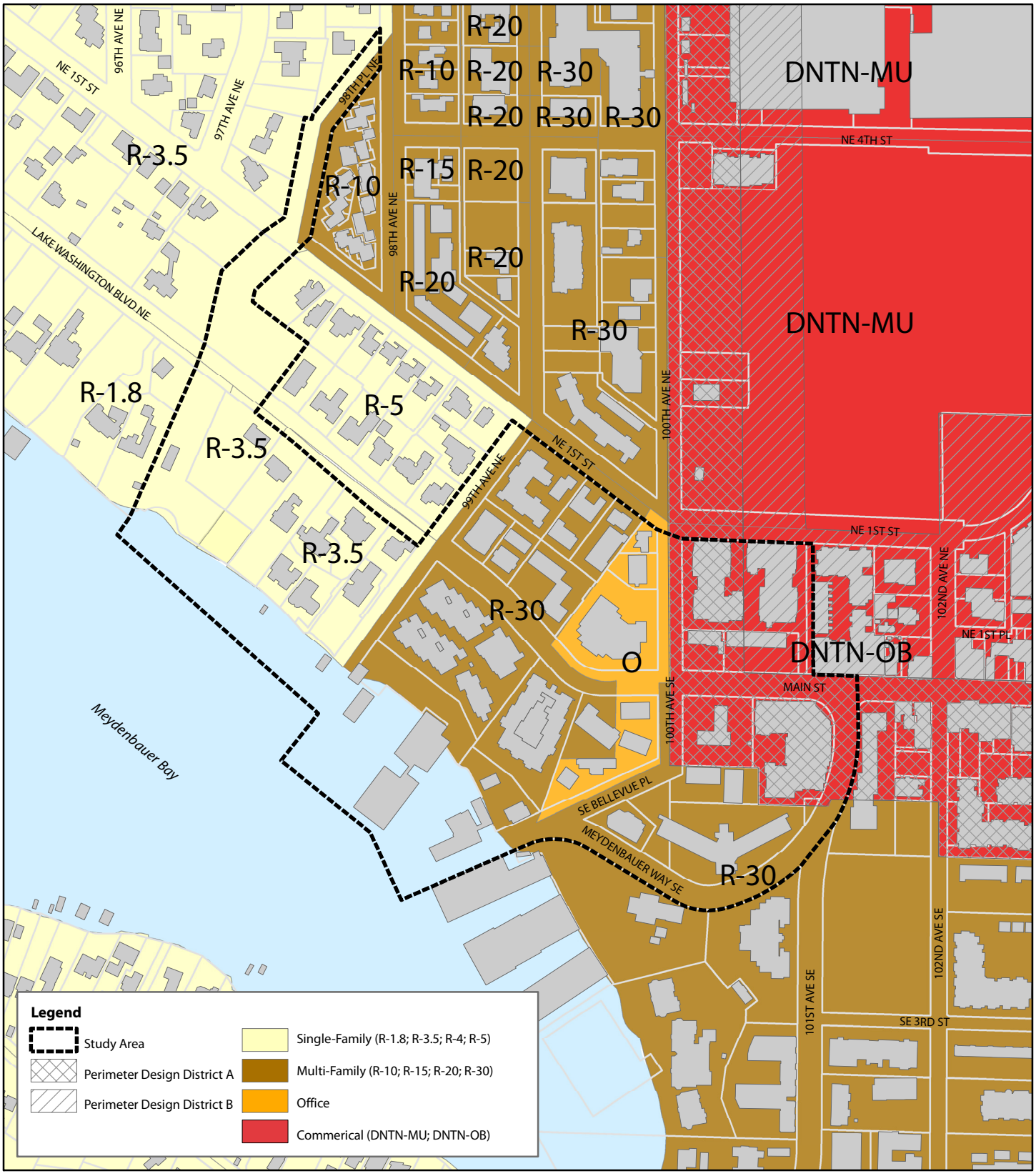
- **Multi-Family: R-30.** A large portion of the study area, including part of the shoreline, is zoned R-30, multi-family residential. Zoning steps down in development intensity at the northwest of the study area from R-30 to R-20 and R-10, providing a transition into adjacent single-family land use districts. This district is intended for attached dwellings of moderate density with convenient access to employment centers and having primary access to arterial streets (LUC 20.10.220). City parks are permitted outright. Non-recreational uses within parks are conditionally permitted (LUC 20.10.220.440).



Source: City of Bellevue GIS 2009

Figure 3.4-4: City of Bellevue Subarea Planning

Meydenbauer Bay Park and Land Use Plan EIS
City of Bellevue



Source: City of Bellevue GIS 2009

0 125 250 500 Feet

Figure 3.4-5: Zoning

Meydenbauer Bay Park and Land Use Plan EIS
City of Bellevue

- **Office: O**. Parcels along the western edge of 100th Avenue NE and 100th Avenue SE are zoned O, office. Providing a buffer between residential and core commercial areas, the O designation allows less intensive commercial uses in locations adjacent to arterial or commercial access streets (LUC 20.10.260). City parks are permitted (LUC 20.10.440).

- **Downtown: DNTN-OB**. The northeast portion of the study area falls within the DNTN-OB District, Downtown - Old Bellevue designation. This area is intended to "describe the Old Bellevue area and assure compatibility of new development with the scale and intensity of the area. The social and historic qualities of this area are to be preserved" (LUC 20.10.370.A.5). The DNTN-OB zoning designation allows a variety of residential, retail, and commercial uses and parks generally (LUC 20.10.440).

Perimeter Design District

Northeastern portions of the study area also fall within Subdistricts A and B of the Downtown's Perimeter Design District. The purpose of these design districts is to establish a stable development program for the downtown perimeter and adjacent neighborhoods (LUC 20.25A.090).

Transition Area Design District

Part 20.25B LUC establishes a Transition Area Design District that provides a buffer between residential land use districts and land use districts that permit development of higher intensity. Where multi-family development is planned adjacent to single-family residential uses, or commercial development is planned adjacent to residential uses, such development should incorporate elements in the site design and building design to soften its impact and to result in a compatible transition (LUC 20.25B.010). Several of the properties within the study area lie within the Transition Area Design District.

Shoreline Overlay District

The overwater portions of the study area and the first 200 feet landward of the OHW mark fall within the Shoreline Overlay District, which is intended to govern all construction-related activities including dredging and filling (LUC 20.25E).

Critical Areas Overlay District

Part 20.25H LUC establishes standards and procedures that apply to development within the "Critical Areas Overlay District," which includes any site that is designated as a critical area or critical area buffer (LUC 20.25H.005). Critical areas include streams, wetlands, shorelines, geologic hazard areas, habitat associated with species of local importance, and areas of special flood hazards.

Park Development

Park uses are divided into three categories by the City of Bellevue Land Use Code: public park, private park, and City park. The proposed park falls within the definition of "City park," which is: "A recreational facility and/or open space operated by the City under the direction of the City manager or his or her designee for the use and benefit of the general public" (LUC 20.50.040). City parks are permitted outright in the R-30 zone. City parks are generally permitted outright in

single-family districts, but Lake Washington beachfront parks in single-family districts require conditional use approval. Similarly, certain uses or facilities in City parks in single-family districts require conditional use approval, including lighted sports and play fields, sports and play fields with amplified sound, community recreation centers, and motorized boat ramps. Nonrecreation uses (commercial, social service, or residential use located on park property but not functionally related to City park programs and activities) in City parks in all districts outside the downtown require conditional use approval (LUC 20.10.440).

Development Standards Summary

Tables 3.4-1 and 3.4-2 summarize the City of Bellevue development standards for the land use districts within the Meydenbauer Bay Park and Land Use Plan study area. Their primary purpose is to provide standards for building placement, height, bulk, and scale. The Bellevue Land Use Code stipulates special circumstances that could alter these requirements.

Table 3.4-1. Dimensional Requirements by Land Use Classification.

LAND USE CLASSIFICATION	Residential	Office	Downtown District
	R-3.5	O	DNTN OB*
DIMENSIONS			
Minimum Setbacks of Structures (feet)			
Front Yard	20	30	
Rear Yard	25	25	
Side Yard	5	20	
2 Side Yards	15	40	
Minimum Lot Area			
Acres (A) or Thousands of Sq. Ft.	10	N/A	
Dwelling Units per Acre	3.5	20	
Minimum Dimensions (feet)			
Width of Street Frontage	30	N/A	
Width Required in Lot	70	N/A	
Depth Required in Lot	80	N/A	
Maximum Building Height (feet)	30	30	
Maximum Lot Coverage by Structures (percent)	35	35	
Maximum Impervious Surface (percent)	50	80	
Minimum Greenscape Percentage of Front Yard Setback	50	N/A	

Source: Adapted from City of Bellevue LUC Chart 20.20.010.
*See Table 3.4-2 for downtown district development standards.

Table 3.4-2. Dimensional Requirements in Downtown Perimeter Design District.

	Building Type	Minimum Setback				Max Bldg Floor Area per Floor Above 40′	Max Bldg Floor Area per Floor Above 80′	Max Lot Cov	Building Height		Floor Area Ratio	
		Front	Rear	Side	Min from DNTN Boundary				Basic	Max.	Basic	Max.
District A	Nonresidential	0	0	0	20’	20,000 gsf/f	12,000 gsf/f	100%	30′	40′	0.5	1.0
	Residential	0	0	0	20’	20,000 gsf/f	12,000 gsf/f	100%	30′	55′	2.0	3.5
	Parking	0	0	0	20’	N/A	N/A	75%	30′	40′	N/A	N/A
District B	Nonresidential	0	0	0	N/A	20,000 gsf/f	12,000 gsf/f	100%	30′	65′	0.5	1.0
	Residential	0	0	0	N/A	20,000 gsf/f	12,000 gsf/f	100%	45′	90′	2.0	5.0
	Parking	0	0	0	N/A	N/A	N/A	75%	40′	40′	N/A	N/A

gsf/f = gross square feet per floor.
Source: Adapted from City of Bellevue LUC Chart 20.25A.020.A.2.

3.4.2 Impacts

3.4.2.1 Methods

This Draft EIS evaluates a No-Action Alternative and two action alternatives (Alternative 1 and Alternative 2), as described in Chapters 1 and 2. The No-Action Alternative provides a baseline against which to measure both short-term and long-term impacts of the action alternatives on land use. Project planners conducted a walking survey of the study area and vicinity to understand the existing land use setting and to help visualize the three alternatives being evaluated. Each alternative was then analyzed in terms of the effects resulting from changes in land use and resulting redevelopment. Land use impacts were evaluated based on consistency with applicable land use plans, policies, and regulations. Of particular importance to the Meydenbauer Bay Park and Land Use Plan is compatibility with current Bellevue zoning, the Comprehensive Plan, and subarea plans described above in Section 3.4.1 (*Affected Environment*), and the planning principles adopted by Bellevue City Council that were developed specifically for the study area. Applicable land use policies are described in Section 3.4.1.2 (*Regulatory Setting*). Impacts specific to shoreline policies are described in Section 3.5 (*Shorelines*). Compatibility was assessed in terms of types of use, intensity of use, and the presence of transitions and buffering between land uses and/or zoning designations. Physical changes due to changes in use or intensity of use were evaluated in terms of indicators such as relative building bulk and scale, numbers of residents and/or employees, and quality and availability of public amenities including parks and other public space. Corollary impacts (including traffic, noise, and visual quality) were evaluated in their respective sections and are referenced as applicable but are not analyzed here.

The type, degree, and significance of potential land use impacts were assessed based on applicable land use plans, policies, and regulations, as described in Section 3.4.1.2 (*Regulatory Setting*). A significant land use impact would be one that is reasonably likely to result in a more than moderate adverse land use impact.

3.4.2.2 Impacts Common to All Alternatives

Under all project alternatives, both public and private properties within the study area would experience some level of redevelopment.

Residential Redevelopment

As described in Section 3.4.1, the majority of privately owned parcels within the study area are developed as apartments or condominiums. Many are developed at unit densities greater than the densities permitted by the existing zoning code (Figure 3.4-5). Although the amount of residential redevelopment would vary among the No-Action Alternative and Alternatives 1 and 2, all alternatives would experience some level of project-specific redevelopment. Older structures may be modernized or redeveloped with units of higher value in the contemporary residential market, especially given the proximity to amenities such as a growing civic center, adjacent waterfront, and several parks. Given the context of multi-family residential and commercial uses within and adjacent to the study area, multi-family residential redevelopment would be generally compatible with surrounding uses.

Parks and Public Facilities Redevelopment

The City of Bellevue has purchased all nine single-family residences south of Lake Washington Boulevard between 99th Avenue NE and Meydenbauer Beach Park. Under all alternatives, these residential structures and the private docks would be removed, and this land would be converted to public park use. The funding grants used to acquire these properties include specific policies and requirements that restrict or guide redevelopment for park, recreation, open space, and aquatic uses (see Section 3.6.1).

Intensity of future project-specific park development varies between the alternatives, as described below. Impacts of this change within the context of Bellevue's park and open space system are described in greater detail in Section 3.6 (*Parks and Open Space*).

3.4.2.3 No-Action Alternative

Many elements of the No-Action Alternative are common to all alternatives, as described above. The elements of the No-Action Alternative are described in Chapters 1 and 2 (also see Figure 1.3-1). Key elements of this alternative anticipate future project-specific redevelopment of the commercial parcels south of Main Street and east of 100th Avenue SE, and expansion of Meydenbauer Beach Park south to 99th Avenue NE.

Residential and Commercial Redevelopment

Under the No-Action Alternative, the study area would experience incremental redevelopment. Existing zoning designations are graduated to transition where multi-family zoning abuts single-family zoning across 99th Avenue NE. As described in Chapter 2, the Chevron site most likely would be redeveloped as medium-density residential above street-level retail, although other uses are allowed as well, such as office, hotel, and restaurant uses. The Brant property on the northeast corner of Main Street and 99th Avenue NE likely would be similarly redeveloped at a smaller scale, commensurate with the parcel size. Redevelopment would result in an increase of approximately 10 to 80 additional dwelling units within the study area. Such redevelopment is compatible in character and intensity with the intent of the Downtown – Old Bellevue District. It

also is compatible with current redevelopment of other properties in the vicinity with ground-floor residential over retail use. Because of its location and adjacencies, no significant adverse impacts would result.

Parks and Public Facilities Redevelopment

As described above, the No-Action Alternative anticipates the expansion of park use between Lake Washington Boulevard and the Lake Washington shoreline. Future project-specific park development would include the removal of residential structures and the addition of limited park amenities, such as a shoreline pathway linking the existing beach park to 99th Avenue NE, additional native landscaping in the vicinity of the Bellevue Marina and reduction in impervious surfaces, and relocated parking to a new surface lot accessed from 99th Avenue NE. The park would contain modest amenities and be left in a relatively undeveloped state. This type of development would provide passive recreational opportunities for neighborhood residents and people who work nearby.

In terms of land use compatibility, the conversion to park use would provide some advantages over the existing single-family residential use. The existing Meydenbauer Beach Park wraps along the waterfront, directly bordering three of the single-family parcels. The City-owned Bellevue Marina is adjacent to parcels across 99th Avenue NE. Thus, the current single-family use is sandwiched between seasonally intense public uses. Extending the park use from Meydenbauer Beach Park to 99th Avenue NE and along the Bellevue Marina creates a single public-use zone from Lake Washington Boulevard to the Lake Washington shoreline.

Anticipated impacts of the No-Action Alternative would include increased pedestrian activity along 99th Avenue NE and seasonally increased traffic on 99th Avenue NE because of the improved connection to the beach and shoreline accessibility. Since 99th Avenue NE already provides access to the public marina facilities, this additional public use would create a seasonal increase in intensity for street use, but would not represent a significant change in street function. Traffic impacts are described in greater detail in Section 3.9 (*Transportation*).

As described in Section 3.4.1, the north side of Lake Washington Boulevard is zoned and developed with single-family residences. The steep upslope area along the north side of the street provides vertical separation, increased views, and privacy for these existing homes. The topographic separation between the north and south sides of Lake Washington Boulevard would provide sufficient separation between the residential use and the expanded park use.

The public moorage (i.e., Bellevue Marina, which includes the Meydenbauer Bay Marina and the Yacht Basin properties) would retain a mix of at least 14 transient moorage slips with the remainder available for longer term moorage use.

Policy Conformance

As described in Affected Environment (Section 3.4.1), several state and local policy directives apply to park and land use planning in the study area. While these are described in more detail in Section 3.6 (*Parks and Recreation*), it is worth mentioning that the No-Action Alternative does not address policy goals regarding public shoreline access and appropriate neighborhood transitions. This alternative also does little to address City of Bellevue policy goals regarding connectivity between downtown and the Lake Washington waterfront. From a land use

perspective, the No-Action Alternative would not provide the kind of multi-use civic open space endorsed by the Council. The No-Action Alternative also does little to create the desired pedestrian and visual connections between the downtown and the lakefront areas.

3.4.2.4 Alternative 1

While there are many elements common to all three alternatives, Alternatives 1 and 2 place greater emphasis on providing shoreline access and public facilities associated with a waterfront park, and on strengthening connections between the waterfront and downtown. Elements of Alternative 1 are described in Chapters 1 and 2 (also see Figure 1.3-2).

Residential and Commercial Redevelopment

Under Alternative 1, Comprehensive Plan policies and zoning regulations would be revised to designate a new overlay district that would accommodate the desired redevelopment of a portion of the study area. Several parcels within the study area would be subject to these new standards, which would encourage development of denser, mixed-use structures, and provide a transition between downtown and the proposed Meydenbauer Bay Park. Bulk and scale of select parcels would be determined by floor area ratio (FAR) rather than by units per acre which they are under the current zoning. Reduced setbacks would encourage buildings that clearly define a street edge, while density bonuses would encourage public amenities to support a higher quality pedestrian realm.

Alternative 1 would increase the allowable development intensity for two sections of the study area. For the blocks north of Lake Washington Boulevard and west of 100th Avenue NE, the average unit count would increase by approximately 38 units (from approximately 115 units in the No-Action Alternative to approximately 153 units in Alternative 1). For the blocks south of Main Street and east of 100th Avenue SE, the average unit count would increase by approximately 55 units (from a range of 183 to 231 units in the No-Action Alternative to 238 to 286 units in Alternative 1). This increase shifts density to the east end of the study area through the conversion of the Bayvue West parcel from apartments to park use, and redevelopment of the Chevron, Bayvue East, and Meydenbauer parcels. Impacts would be limited as the density shifts toward areas currently zoned for the equivalent or higher development intensity. Traffic impacts are covered in more detail in Section 3.9 (*Transportation*), but the net change in unit count is relatively small in terms of impact on adjacent streets.

The allowance for pedestrian-oriented retail on the Bayvue East parcel would result in some localized increase in pedestrian activity, which would be minimal in the context of the redevelopment anticipated under the No-Action Alternative. Similarly, 100th Avenue SE, although closed to vehicles, would retain a semi-public character because of the presence of the marina and commercial waterfront uses. Under Alternative 1, the Brant Photography parcel would not be part of a new overlay district and would be expected to redevelop under existing zoning.

Parks and Public Facilities Redevelopment

Specifics of park and open space programming and potential impacts are described in Section 3.6 (*Parks and Recreation*). This section describes larger scale land use impacts resulting from park elements unique to Alternative 1.

From a land use perspective, the biggest difference compared to the No-Action Alternative is the conversion of the Bayvue West parcel from apartments to public park use. In this alternative, 100th Avenue SE would be closed south of Main Street. This right-of-way would be combined with the Bayvue West parcel to create a hillside entry plaza with stairs, plantings, and a water feature. Access to the adjacent Vue Condominiums and 10000 Meydenbauer Condominium would continue to be provided by Meydenbauer Way SE. While Bellevue Marina is owned by the City, there is limited public access, and the character of 100th Avenue SE is primarily neighborhood residential. The addition of this entry plaza would enhance the public character of the hillside between Main Street and the marina.

Within the park area west of 99th Avenue NE, a community building and environmental education center would be added. The existing access road and parking for Meydenbauer Beach Park would be removed, and the stream would be daylighted for the extent of the park ravine. Converting the road and parking to native vegetation and passive recreational use would improve the transition between the park and adjacent single-family residences. Additionally, the beach and public pier would be moved farther east. A restored wetland at the mouth of the stream would provide a buffer between beach use and single-family waterfront uses.

The addition of a 4,000-sf community building and a 3,000-sf environmental education center would add year-round activity compared to the intense seasonal use of the beach under the No-Action Alternative. Additional parking would be provided and accessed from 99th Avenue NE. The greatest impacts of the community facilities would be increased year-round public vehicular and pedestrian activity on 99th Avenue NE (see Section 3.9).

Policy Conformance

Compared to the No-Action Alternative, the addition of the hillside entry plaza in Alternative 1 would address several policy goals and objectives articulated in the Comprehensive Plan and in the 12 Planning Principles intended to guide development of the study area. This entry plaza would enhance the visual and pedestrian connection from Downtown Park to the Lake Washington waterfront. It would also provide an open space element that connects Meydenbauer Bay Park to Main Street and downtown, thus helping create a waterfront park of civic significance. Public park uses are currently permitted in the R-30 zone; therefore, the change in use would be consistent and would not conflict with existing regulations.

Alternative 1A – Road Open Variant

In this variant, 100th Avenue SE would remain open between Main Street and Meydenbauer Way SE. This would allow vehicular access to the redeveloped properties along the east side of 100th Avenue SE and preserve access options for existing residential structures and Bellevue Marina. While physical space for the hillside entry plaza would be lessened, pedestrian connections might be perceived as safer with the higher level of public activity and visibility associated with an open street. Residential neighbors would benefit from increased vehicular access but also would experience increased public vehicular traffic related to park access. Retail services along the east side of 100th Avenue SE would have increased exposure but would lose the distinctive park-front adjacency, which would be desirable for certain types of business.

3.4.2.5 Alternative 2

Alternative 2 is described in Chapters 1 and 2 (also see Figure 1.3-3). It is similar to Alternative 1 in that it strives to address policy goals related to the creation of a waterfront district with high-quality civic open space and appropriate adjacent development. Alternatives 1 and 2 are identical in terms of the proposed regulatory change and redevelopment of upland parcels and the designation of a new overlay district. For an explanation of proposed regulatory changes, land use changes, and impacts, see the description above for Alternative 1.

Alternatives 1 and 2 differ primarily in the program and design of open space and recreational elements. As in both the No-Action Alternative and Alternative 1, the park area between Lake Washington Boulevard and the shoreline would be expanded eastward to 99th Avenue NE and along the Bellevue Marina. As in Alternative 1, the Bayvue West parcel would be converted from apartments to a hillside entry plaza for public open space use. As in Alternative 1, Alternative 2 would have a community building sited in the park area west of 99th Avenue NE; this community building would be approximately twice the size (8,000 sf) as under Alternative 1 (4,000 sf).

While there are many differences between Alternatives 1 and 2 in terms of park design and shoreline treatment, these are not substantial in a land use context; they are described in the other sections of this chapter where the differences are more relevant. From a land use standpoint, the primary differences are the intensity of uses programmed for the hillside entry plaza, and the retention of the existing parking lot and access road for Meydenbauer Beach Park.

As in Alternative 1 the entry plaza would provide a public connection from Main Street to the shoreline, but in a more structured architectural manner. Relative to the multi-family housing retained in the No-Action Alternative, the proposed structures would not reflect a significant change in development bulk and scale. In Alternative 2, a 3,000 sf café and below-grade flexible space for programming such as storage for people-propelled vessels (PPVs) and rental or other park support uses would both be located in structures integrated into the hillside entry plaza south of Main Street along the alignment of 100th Avenue SE. The addition of more overtly architectural elements and provision for indoor functions would reflect more intense year-round public use. As the existing and surrounding uses are multi-story office and multi-family residential structures, the bulk and scale of the proposed program elements would be generally compatible. The community uses proposed within the park are conditionally permitted within the R-30 zone, so design procedures are already specified by existing land use code. These procedures are written to ensure that any permitted non-park uses would be designed to minimize adverse impacts.

Alternative 2A – Road Open Variant

See the description above for Alternative 1A. The Road Open Variant would have similar impacts for Alternatives 1 and 2, except that Alternative 2A would provide access for the second garage from 100th Avenue SE.

3.4.3 Mitigation Measures

The three alternatives illustrate potential land use changes that could result through future project-specific redevelopment within the Meydenbauer Bay Park and Land Use Plan study area. State and local policies and City of Bellevue land use legislation provide measures to successfully transition and integrate new land uses. Measures that would be incorporated as part of future project-specific design and permitting include the following:

- **Sensitive Planning and Design.** Zoning and Comprehensive Plan guidelines will ensure that future uses are consistent and consider adjacencies and intensity of nearby uses. Design review within specific design districts also would mitigate transition effects between more intensive and less intensive uses. All park development alternatives will be required to meet criteria set forth for conditional-use permits. The criteria require that the use is consistent with the Comprehensive Plan and compatible with the intended character of the site and its vicinity.

- **Community Communication.** Project-level design and environmental reviews will inform community members in project evolution and help balance stakeholder and project interests.

- **Construction Management.** Project-level permit review will ensure that construction is managed to minimize impacts on residents, workers, and the environment. As required for any construction project, construction timing and traffic and noise management plans will be required to comply with existing codes intended to mitigate construction impacts.

3.4.4 Summary of Impacts

Implementation of the project alternatives during future project-specific development would have relatively minor land use impacts within the study area. Impacts would occur both over the short term (associated with construction activities), as well as over the long term (associated with permanent changes in land use and intensity). In the short term, construction-related activities could temporarily displace visitors to the park and nearby neighborhoods within the study area. Such impacts would be slightly more pronounced under the action alternatives relative to the No-Action Alternative, given the greater level of development proposed; however, such impacts would be less than significant under all project alternatives. Over the long term, redevelopment would increase the intensity of use within both the upland parcels and the park. These increases would be greater under both action alternatives compared to the No-Action Alternative, with Alternative 2 resulting in somewhat more intense redevelopment compared to Alternative 1. Compared to the No-Action Alternative, the action alternatives would result in greater beneficial effects because they address several of the policy goals and objectives articulated in the Comprehensive Plan and the 12 Planning Principles.

In summary, the project alternatives would result in no significant unavoidable adverse land use impacts in the study area. Redevelopment under any of the three project alternatives would be consistent with applicable policies and regulations. Alternatives 1 and 2 would provide long-term beneficial effects, consistent with the City's goals and policies guiding park development, and improved transitions and connections between the park and surrounding neighborhoods.

3.5 SHORELINES

The following section describes the shorelines in the study area; applicable plans, policies, regulations, and laws pertaining to work in or near waterways and the protection of water quality; and the effects of the project alternatives on the shoreline environment. The shoreline area includes both uplands within 200 feet of the OHW mark and submerged land waterward of the OHW mark.

3.5.1 Affected Environment

Meydenbauer Beach Park extends along 1,250 linear feet of shoreline on Meydenbauer Bay, from Meydenbauer Beach Park to SE Bellevue Place and north to Lake Washington Boulevard NE (Figure 3.1-2). The park includes an existing swimming beach and pier at the northwest corner of the study area. The beach extends along the edge of the lake southeast to a low riprap slope, topped by grass and riparian vegetation that continues past the park and along the private properties to the City-owned and operated Bellevue Marina.

Much of the shoreline along this area is developed with shoreline armoring (rock riprap or timber bulkhead), private residential docks, and a swimming beach. Outfall pipes carrying stormwater from upland areas discharge at several locations along the shoreline.

Three roads are located within 200 feet of the Lake Washington shoreline on either side of the marina; on the northwest is 99th Avenue NE, and on the southwest are SE Bellevue Place and Meydenbauer Way SE. All three roads provide access to the marina, the park, and to adjacent private properties.

3.5.1.1 Existing Conditions

Waves and Currents

Waves in Lake Washington are generated by local winds. Meydenbauer Beach Park is relatively sheltered; the two points (Groat Point and Pickle Point) at the entrance to Meydenbauer Bay protect the area from the predominant northerly and southerly winds in Lake Washington (M&N 2008). The north end of Mercer Island provides further protection from southwesterly winds.

A hydrographic survey of the area was conducted in June 2008 (PGS 2008). Bottom contours indicate that the slopes flatten out in the vicinity of the Bellevue Marina. Although most of the marina (i.e., Piers 1 and 2) is located in an area with water depths of 10 to 12 feet at low lake levels, slips within 30 to 50 feet of the shoreline are shallower, with water depths less than 7 feet. During low lake levels, water depths at Pier 3 are particularly shallow, ranging from 3 feet (near the shoreline) to about 7 feet at the outer end.

Sediments

In 1999 and 2000, sediment samples were collected and tested from a number of sites in Lake Washington, one of which was Meydenbauer Bay (King County 2004). The results indicated that, relative to other areas of Lake Washington, sediment quality in the Bellevue area is relatively “clean” with respect to chemical contaminants. This sampling effort was preliminary. Any proposed dredging or sediment removal in Meydenbauer Bay could require more extensive project-specific sediment characterization.

Some sediment accumulation occurs at the mouth of stormwater outfalls in Meydenbauer Bay. In past years, the City has conducted land-based sediment removal at the stormwater outfall near the Bellevue Marina. This continues to occur periodically as an outfall maintenance practice.

Shoreline Interface

A small public timber pier is located at the north end of Meydenbauer Beach Park. A swimming area with an artificial beach and concrete steps is located adjacent to the pier (Figure 3.1-3). The beach is largely composed of coarse sand; however, much of the substrate immediately offshore and at the pier is gravel-sized. The shoreline drops off rapidly at a gradient as high as a 1 vertical: 5 horizontal immediately offshore of the marked swimming area (PGS 2008).

South of the swimming area, the shoreline changes to a low riprap slope, topped by grass and some riparian vegetation. This general shoreline treatment continues past the park along the private properties between the main park area and the marina. At the marina, the shoreline treatment is partly riprap and other slope treatments. A concrete bulkhead was constructed at Pier 3 in the late 1960s. The nearshore slope at the marina is much flatter than at the north end of the study area.

Wetlands

Three Category IV wetlands, which drain to an area that historically flowed as a stream, have been identified within the study area during the City's Sub-Area Shoreline Inventory (TWC 2008). All three wetlands are considered associated wetlands. While they are separated from the lake by a portion of upland, Ecology guidance states that wetlands are associated if any part of the wetland lies within the 200-foot area of the OHW mark, even if they would otherwise not be considered associated.

Each wetland is fed by a common groundwater seep, and a ditch and culvert run through them; the wetlands do not provide more than minor water quality, erosion prevention, or habitat value function to the project site. Additional information on the existing conditions and pertinent regulations for these wetlands can be found in Section 3.3 (*Plants and Animals*).

Piers, Docks, and Moorage

Meydenbauer Beach Park Pier

The Meydenbauer Beach Park Pier is a public timber pier and is located adjacent to the swimming beach at the north end of the park.

Residential Docks

Six small residential timber docks, varying in length from 70 to 120 feet, extend from the shoreline into the bay, between the existing park and marina. Each dock is located waterward of each of the residential properties along the shoreline now owned by the City. Only the southernmost dock is in use; the other docks are fenced to restrict access because of safety concerns.

Bellevue Marina Piers 1, 2, and 3

The Bellevue Marina consists of three piers that provide a total of 112 slips. Of these, 14 are obligated for transient moorage as a perpetual provision of a grant received by the City from the Washington State Recreation and Conservation Office (RCO). Eleven of the remaining 98 permanent moorage slips are considered to have limited use because of access or navigation issues (e.g., the water is not deep enough to accommodate most vessels).

The Bellevue Marina includes two types of piers– fixed and floating. Fixed piers consist of piling that support the deck areas at a fixed elevation above the water. Floating piers are piers with decking that floats on the water surface and can vary with changes in lake elevation. Piers 1 and 3 are fixed piers, while Pier 2 is a floating pier (Figure 3.5-1). Covered moorage is provided on Piers 2 and 3.

Pier 1, rebuilt in 1998, is a timber and steel pile-supported fixed pier with a timber deck. It is the northernmost pier at the marina and supports an historic building (the Whaling Building) once used for whaling vessels. A timber building with two residential units is located adjacent to Pier 1 on the upland area. A portion of the building extends out over the shoreline, and the upper unit of this building is used as the harbormaster's office.

Figure 3.5-1: Study Area Shoreline.

Pier 2 was reconstructed in 1998 and includes concrete floating pier supported by steel and timber piling. The piling also support the roof structure and anchor the floating pier system. Timber mooring piles are located at midpoints between fingers to provide additional tie-off locations for boats.

Pier 3 is a pile-supported fixed timber pier constructed in the late 1950s. A portion of the pier provides covered moorage for boats. The timber roof structure is supported by posts mounted on the pier deck.

Public Access

Developing public access to the shoreline area is a City priority, as evidenced by the goals and policies in the City's Comprehensive Plan, which (except for single-family residential lots) encourage public access to and along the shoreline.

Meydenbauer Beach Park provides approximately 300 feet of shoreline frontage currently accessible to the public. The City owns approximately 950 feet of shoreline southeast of Meydenbauer Beach Park. The Bellevue Marina at Meydenbauer Bay currently provides approximately 600 feet of shoreline access, but not all of it is available to the public.

Ecological Characteristics and Functions

The primary description of ecological characteristics and functions is provided in Section 3.3 *(Plants and Animals)*. However, overwater cover and shoreline armoring are important elements from a shoreline design perspective and an ecological perspective. Proposed waterfront projects must often balance shoreline- and water-dependent uses with ecological concerns. Thus, some description on in-water structures, overwater cover, and shoreline protection is provided here.

There are ten in-water structures (includes docks, piers, floats, and any slip fingers affiliated with these structures) within the study area. Approximately 43 square feet per lineal foot of overwater cover is present in the Meydenbauer Bay area, compared to 32 square feet per lineal foot of overwater cover along the City's Lake Washington shoreline (TWC 2008). The greater overwater cover is primarily the result of the presence of the Bellevue Marina and the Meydenbauer Bay Yacht Club. A total of approximately 50,000 square feet of overwater cover is located within the study area.

The overall shoreline ecological function is designated as "low functioning" because of the 1,250 feet of armoring on the shoreline, along with other functional assessment, within the existing study area (TWC 2008). The City's Shoreline Analysis Report (City of Bellevue 2009) proposes to designate the park shoreline (not including the marina property) as Urban Conservancy to protect and restore the ecological function of this shoreline.

3.5.1.2 Regulatory Setting

All proposed shoreline and/or in-water projects must comply with applicable local, state, and federal regulations, laws, and guidelines. Each regulating body or oversight agency has a statutory responsibility for certain aspects of shoreline protection and for managing activities to prevent or mitigate environmental impacts during construction and eventual operation of a shoreline activity or facility. Applicable regulatory authorities that guide shoreline and in-water activities include the following:

- **Washington State Shoreline Management Act (SMA) (RCW 90.58)** – Statewide program administered by Ecology, with permitting delegated to cities and counties.

- **State Environmental Policy Act -** As described in more detail in Section 3.1.1.2 (*Regulatory Setting*), SEPA requires all governmental agencies to consider the environmental impacts of a proposed action before making decisions.

- **Bellevue Shoreline Master Program (SMP) -** In 2003, Washington revised its shoreline management guidelines to emphasize ecologically appropriate development. Washington cities and counties with "shorelines of the state" must update their SMP to reflect these new guidelines, while still tailoring their SMPs to their specific geographic, economic, and environmental requirements.

The City of Bellevue is currently updating its SMP (the SMP has not been comprehensively updated since 1974). Developed in accordance with the Washington SMA, the SMP will incorporate updated requirements (to the extent not included in the CAO) for development and protection of shoreline resources within an area that extends 200 feet landward from the OHW mark of Lake Washington. The City's SMP policies and goals apply to Lake Washington and any associated wetlands. The City expects to complete the SMP update in 2010. Future development in the study area would require a Shoreline Substantial Development Permit (SSDP) to ensure compliance with the SMP (LUC 20.30R and 20.25E).

Pursuant to Bellevue's current SMP, and in anticipation of the revised SMP, development associated with the project alternatives would need to comply with the following policies and any proposed policies adopted prior to project permitting. These policies currently include the following:

- Provisions of public access would need to be consistent with public safety, private property rights, and protection of environmentally sensitive areas.
- Development would need to encourage the construction of non-water dependent structures (such as buildings) away from the shoreline.
- Marina facilities need to be limited to commercial or industrial areas. Day moorage may be permitted in recreational areas, but not in environmentally sensitive areas. Marinas should be equipped to handle sewage and wastes from boats, limit gas and oil sales to recreational boats, and be equipped to contain and clean up pollutants associated with boating activity. Shallow embayments with poor flushing action should not be considered for overnight or long-term moorage.
- Uses and activities that improve or are compatible with the natural amenities of the shorelines, provide public access, or depend on a shoreline location would be preferred.
- Shoreline areas suited for public water-enjoyment uses would need to be designated.
- Wildlife and aquatic habitats, particularly spawning habitat, should be protected and improved where possible.
- Construction of multiple or expanded piers except where public access is needed would be discouraged.

- **Bellevue Critical Areas Overlay District (Part 20.25H LUC)** – Shorelines in Bellevue are regulated by the shoreline critical area buffer and structure setback requirements of the City's CAO (LUC 20.25H). The shoreline buffer for undeveloped (no primary structure) and developed (contains a primary structure) sites are 50 feet and 25 feet, respectively. The structure setbacks for undeveloped and developed sites are zero feet and 25 feet, respectively. Primary structure expansions are allowed, only under certain controlled circumstances, if expansion outside the shoreline buffer or setback area is not possible. Variances to these LUCs may be obtained through the CAO report process per LUC 20.25H.230.

  All developments that require an SSDP, conditional use permit, or variance are also reviewed under the City's CAO.

- **Bellevue Shoreline Overlay District (Part 20.25E LUC)** – Piers, docks, and shoreline stabilization measures are regulated at the local level under the City's LUC 20.25E.

Bellevue's LUC, CAO, and SMP have been developed to work together to frame the City's current shoreline regulations, and any proposed developments must comply with all of these codes and regulations. The City is currently updating its SMP. Once completed, overlap and updates may result in some changes and/or modifications to the City's LUC and CAO.

Any work within 200 feet of the OHW mark or in-water work also would require permits from the Corps, WDFW, and Ecology. Potential project-specific permits include (but are not limited to):

- Corps Rivers and Harbors Act - Section 10 - For work in, over, or under navigable waters.
- Corps Clean Water Act - Section 404 Compliance - For discharge of dredge or fill material into water or wetlands.
- WDFW Hydraulic Project Approval (HPA) – For work that uses, diverts, or obstructs the natural flow or bed of state waters.
- Ecology Clean Water Act - Section 401 Water Quality Certification for any activity that could cause a discharge of dredge or fill material into water or wetlands, or excavation in water or wetlands, and for activities that could impact water quality.

3.5.2 Impacts

This section describes probable short-term impacts (those associated with future project-specific construction activities) and long-term impacts (those associated with physical changes to the study area) associated with the No-Action Alternative and both action alternatives for the following elements:

- Waves and Currents
- Sediment
- Shoreline Interface
- Wetlands
- Piers, Docks, and Moorage
- Public Access
- Ecological Characteristics and Functions
- Regulatory Compliance

3.5.2.1 Methods

This Draft EIS evaluates a No-Action Alternative and two action alternatives (Alternative 1 and Alternative 2), as described in Chapters 1 and 2. The No-Action Alternative provides a baseline against which to measure the impacts of the action alternatives. This shoreline analysis is based on guidance provided by WAC 197-11-960 (SEPA environmental checklist) regarding identification, characterization, and mitigation of shoreline impacts. The potential shoreline-related impacts listed above are evaluated qualitatively because of the programmatic nature of

this document and because the development activities for the action alternatives are generally similar. Relative differences between the No-Action Alternative and the action alternatives are identified where appropriate. Qualitative evaluation of potential shoreline impacts is primarily based on comparison of the alternatives with respect to the following:

- Type and extent of physical changes to the shoreline portion of the study area
- Type of shoreline protection proposed
- Proposed number of in-water or shoreline structures
- Total area of overwater coverage from piers and moorage
- Modifications to critical areas
- Presence of endangered species in the study area
- Compliance with applicable regulations

The type, degree, and significance of potential impacts on the shoreline and related uses were assessed based on existing City goals and plans (described in Chapters 1 and 2), along with compliance with federal, state, and local City codes and regulations (as described in Section 3.5.1.2, *Regulatory Setting*). A significant shoreline impact would be one that is reasonably likely to result in a more than moderate adverse effect:

- That would conflict with the shoreline critical area buffer and structure setback requirements.

- That would not effectively stabilize the shoreline.

- That would increase the use of structural solutions to shoreline armoring unless necessary for safety or to control excessive erosion.

- On moorage, including number of slips, navigation, and long-term (permanent) as well as short-term (transient) use.

- That would conflict with new or expanded marina moorage development standards and the City's Shoreline Overlay District.

3.5.2.2 No-Action Alternative

The No-Action Alternative includes demolishing nine single family residences, minor site regrading and landscaping, constructing a new shoreline path along the shoreline between 99th Avenue NE and the swimming beach, removing the six timber residential docks, retaining the stream in the culvert through the park in the vicinity of the ravine, and retaining other elements associated with existing conditions in the study area (such as the public pier at the beach park, Piers 2 and 3, and existing shoreline armoring). Modest upland redevelopment also would occur at the intersection of Main Street and 100th Avenue NE, but these areas are outside the designated shoreline zone.

Waves and Currents

Changes to hydrology of the site with respect to waves and currents due to the location of any of the future project-specific structures are not anticipated for the No-Action Alternative. Impacts on or from waves and currents are therefore not expected.

Sediment

There is a potential that ongoing sediment removal related to outfall maintenance and in-water demolition of the residential docks could disturb sediment in the study area. Sediment disturbance can result in the migration of contaminated sediment (if present), increased turbidity, and localized disturbance to aquatic habitat and/or aquatic organisms. These potential impacts can be minimized by using appropriate BMPs during any construction and maintenance activities.

Sediment characterization would likely be required as part of the state permitting processes (obtaining the 401 Water Quality Certification from Ecology and the HPA from WDFW) to evaluate the potential presence of contaminated sediment in the area proposed for demolition and/or removal of structures below the OHW mark. The presence of contaminated sediment in the study area would trigger permit restrictions, including required BMPs, during demolition activities.

The potential impacts from sediment disturbance associated with future project-specific development anticipated under the No-Action Alternative would include impacts from demolition and construction activities near the shoreline (in-water and upland), such as soil erosion, release of hazardous materials, spills and leaks from construction equipment, increased water turbidity, increased noise from construction equipment, disturbance of in-water sediments and shallow water habitat, and release of debris into the water (treated timber from the removal of the timber residential docks, etc.). More details of the potential demolition and construction impacts affiliated with shoreline work or in-water structures are provided in Section 3.1 *(Earth)*.

Shoreline Interface

Short-term impacts would include temporary, intermittent disruption from the construction of minor park improvements associated with the No-Action Alternative, such as the proposed shoreline pedestrian pathway between 99th Avenue NE and the swimming beach. Significant impacts associated with those improvements are not expected; however, minimal disruption from demolition of the residences and docks, upland grading, landscaping, and construction of the proposed pathway could temporarily increase erosion and water turbidity. These impacts can be minimized by using appropriate BMPs during construction.

The No-Action Alternative does not propose to make substantial shoreline stabilization improvements (e.g., as proposed in Alternatives 1 and 2) and there would be no potential long-term impacts on the shoreline interface.

Wetlands

No changes are proposed under the No-Action Alternative to any of the shoreline wetlands within the study area. Therefore, no impacts are anticipated.

Piers, Docks, and Moorage

The six smaller timber residential docks located between the existing Meydenbauer Beach Park and the Bellevue Marina would be removed.

The existing, long-term, permanent vessel moorage would remain unchanged. Piers 2 and 3 would retain their covered moorage, and a total of approximately 87 usable long-term permanent moorage slips would remain. The number of transient slips would remain at 14, the minimum required by the City's Washington State Recreation and Conservation Office (RCO) grant provision. The No-Action Alternative does not propose to install additional public amenities for boaters.

The potential impacts associated with changes to dock structures and moorage facilities would be related to public access, sediment disturbance, overwater coverage, and ecological functions. Removal of the residential docks could potentially disturb sediments (as previously described) but would not affect public access. Removal of the overwater cover would be considered beneficial to the ecological function of the study area.

Public Access

Under the No-Action Alternative, limited improvements are anticipated in the study area. The construction of a shoreline pathway between 99th Avenue NE and the existing swimming beach would improve public access to the upper shoreline, which would comply with City SMP goals.

The No-Action Alternative would not impact the existing public access conditions in the study area.

Ecological Characteristics and Functions

Short-term disruption from construction of the proposed pathway could temporarily increase erosion and water turbidity if mandatory BMPs are not in place. Other potential short-term impacts on ecological functions from demolition of in-water structures could include disturbance/migration of sediment, increased debris in the water, and/or increased in-air and in-water noise.

The existing piers, docks, and slips may be inhibiting juvenile salmonid migration along the shoreline and providing predator habitat to species that prey on juvenile fish (refer to Section 3.3, *Plants and Animals*). Long-term changes for the No-Action Alternative include a minor reduction in the total number of in-water structures (from ten to four) from the removal of the City's six small timber residential docks. Overwater cover for this alternative would also be reduced from 50,000 square feet to approximately 46,400 square feet. This could be considered a beneficial impact on ecological functions along the shoreline, but less than that proposed for either of the action alternatives. Restoration is not proposed along the shoreline, nor are any other substantial shoreline habitat improvements.

Regulatory Compliance

The activities of the No-Action Alternative would be consistent with applicable regulations. Local, state, and federal permits would be required to remove the six timber residential docks from the study area. The reduction in the overall number of in-water structures and the removal of treated timber from inwater habitat is considered an ecological improvement by fish and wildlife regulatory agencies. However, temporary disturbance to shallow water habitat from the removal of support piles from the sediments, potential for dock debris to fall into the water, and increased water turbidity caused by dock removal, and equipment used to complete this work would require permits from the Corps, WDFW, and Ecology.

Permits could also be required for construction of the new walkway near the shoreline. The permits would likely specify mandatory BMPs to minimize impacts related to erosion and sediment disturbance, as previously described.

Consistency with SMA and Bellevue SMP

Most of the study area is currently zoned Residential. The No-Action Alternative proposes to retain this zoning and maintain current Comprehensive Plan policies and zoning regulations.

The draft shoreline management recommendations (City of Bellevue 2009) currently suggest that the City could consider changing portions of the shoreline zoning in the study area to incorporate a combination of Marina-Civic and Urban Conservancy designations. The draft recommendations also include promoting public access to the shoreline and allowing for improved water-enjoyment uses and recreation opportunities. The recommendations also emphasize the importance of "no net loss" of ecological function; encourage shoreline restoration, identification of ways to improve water quality; improvement and enhancement of shoreline vegetation; and support environmentally responsible development practices.

The minor shoreline and in-water construction proposed with the No-Action Alternative is not anticipated to conflict with any guidelines and regulations in the SMA or the current or proposed Bellevue SMP, although given the emphasis within the draft recommendations for the revised SMP, the No-Action Alternative does not substantially promote improved shoreline uses or restoration.

3.5.2.3 Alternative 1

Alternative 1 includes the following future project-specific elements: demolishing nine single-family residences; removing Pier 3 and the Meydenbauer Beach Park pier; removing the covered moorage roof structure from Pier 2; removing the six timber residential docks; and removing and relocating the existing restroom, children's play equipment, and picnic facilities. Alternative 1 also includes constructing a community building and education center, below-grade parking garage, terraces and paths as part of the park expansion, and multi-family and mixed-use structures, most of which are outside the designated shoreline zone. Within the shoreline zone, the swimming beach would be relocated and expanded, the wetland relocated, the stream daylighted along its entire length, site-wide regrading and landscaping will be completed, approximately 950 feet of shoring would be replaced with more natural shoring, a shoreline path would be constructed, and a fixed public pier that extends from the shore, just north of Pier 1, waterward would be installed to provide public access over the water.

Waves and Currents

Based on existing wind data, waves were estimated as part of the Shoreline Conditions Technical Memorandum (M&N 2008). Changes to hydrology of the site with respect to waves and currents due to the location of any of the proposed structures are not anticipated for Alternative 1. Impacts on or from waves and currents are therefore not expected.

Sediment

There is a potential that ongoing sediment removal related to outfall maintenance and in-water demolition and construction could disturb sediment in the study area. Sediment disturbance can result in migration of contaminated sediment (if present), increased turbidity, and localized disturbance to aquatic habitat and/or aquatic organisms. These potential impacts can be minimized by using appropriate BMPs during any construction and maintenance activities.

Sediment characterization would likely be required as part of the state permitting processes as previously described. The presence of contaminated sediment in the study area would trigger permit restrictions, including required BMPs, during demolition activities.

The potential impacts from sediment disturbance for implementation of Alternative 1 would be greater than the potential impacts from the No-Action Alternative because of the greater amount of in-water demolition and construction associated with this action alternative.

Shoreline Interface

Future project-specific actions for Alternative 1 would require excavation, fill, demolition, and construction to rework the shoreline, construct a new pedestrian pathway, move and expand the swimming beach, and improve moorage facilities. The shoreline work would take place both above and below the OHW mark. Potential impacts from demolition, grading, and construction activities near the shoreline (in-water and upland) could include soil erosion, release of hazardous materials, spills and leaks from construction equipment, increased water turbidity, increased noise from construction equipment, disturbance of in-water sediments and shallow water habitat, and release of debris into the water (treated timber from the removal of timber docks or bulkheads, etc.). More details of the potential demolition, grading, and construction impacts affiliated with shoreline work or in-water structures are provided in Section 3.1 *(Earth)*.

Modifications to provide more natural shoreline protection could result in the loss of small portions of upland and/or the loss of aquatic habitat, depending on how the more natural "gentle" shoreline slope was created. For example, upland excavation or in-water fill activities may be required to make the slope more gradual. In-water fill activities could eliminate existing in-water habitat and would be difficult to justify or permit. Upland excavation (excavation landward of the OHW mark) would be preferable. Measures to address shoreline protection would be determined as part of the project-specific permitting process based on final project design.

The potential short-term impacts on the shoreline interface associated with Alternative 1 would be greater than the No-Action Alternative and would be similar to Alternative 2. Over the long term, the improvements made to the shoreline interface in Alternative 1 would be greatest for Alternatives 1 and 2 compared to the No-Action Alternative (with the greatest shoreline improvements associated with Alternative 1).

Wetlands

As part of Alternative 1, the wetland located along the shoreline at the north end of Meydenbauer Beach Park would be relocated and modified to a more natural state. As previously described in Section 3.3 *(Plants and Animals)*, the loss of wetland area would be offset by the creation of wetland area near the mouth of the daylighted stream. Depending on the proposed design of the restored stream end, there could also potentially be a net increase in wetland habitat. Further

details on the proposed functionality and hydrology of the site would need to be completed before this could be determined. Alternative 1 proposes the creation of new wetland area at a location within the study area and therefore would not likely adversely impact the study area with respect to wetlands.

The potential long-term impacts on wetlands associated with the relocation proposed for Alternative 1 are similar to the impacts of the No-Action Alternative (with no wetland modifications). The short-term (construction) impacts would be greater for Alternative 1 than the No-Action Alternative.

Piers, Docks, and Moorage

Alternative 1 includes the removal of Pier 3 and the Meydenbauer Beach Park pier, removal of the covered moorage roof structure from Pier 2, removal of the six timber residential docks, and the installation of a fixed public pier that extends from the shore, just north of Pier 1. A City application for Enviro Stars Clean Marina Certification is underway, and the City anticipates receiving the 2-year certification by August 2009. Continuing certification will be sought for any new or rebuilt marina operations.

Permanent moorage at the Bellevue Marina would be reduced from 87 usable slips to approximately 40 long-term moorage slips because of the removal of Pier 3. The 14 slips designated for transient moorage would be retained. Additional moorage and boating-oriented opportunities would also include hand-launching of PPVs, such as canoes or kayaks, along the south side of the new public pier. Construction at the marina would be subject to performance standards included in the City's updated SMP.

Alternative 1 would provide opportunities for public amenities for boaters. A sewage pump-out facility could be incorporated onto Pier 1. The location of such a facility would need to consider adequate water depth and navigable channel width for boat access to the facility. Minor upland improvements, such as security fencing modifications, would need to be incorporated to provide public access to the pump-out locations.

The removal of Pier 3 would reduce the total number of available slips but would provide a large, open water area between the marina and other nearby docks. This may provide some enhancements to navigation for boaters. Related effects to water surface circulation attributable to boat traffic would be subject to the level of use of the in-water improvements.

Alternative 1 would require in-water work (demolition and construction of piers and docks). Most of this work would take place below the OHW mark, and pier and dock construction would require some equipment access by barge. Potential impacts from in-water demolition and construction activities could include the release of hazardous materials, spills, and leaks from construction equipment, increased water turbidity, increased noise from construction equipment, disturbance of in-water sediments and shallow water habitat from the removal of support piles, and release of debris into the water (treated timber from the removal of timber docks or bulkheads, etc.), as previously described.

The potential short-term impacts of Alternative 1 would be greater than the No-Action Alternative because it would require more in-water demolition and construction. Potential short-

term impacts would be slightly less than Alternative 2 because the relative in-water demolition and construction would be less.

Over the long term, the moorage benefits affiliated with either Alternatives 1 or 2 would be greater than those affiliated with the No-Action Alternative, in that both action alternatives would reduce the total square footage of overwater cover by removing portions of the covered moorage, thus improving nearby aquatic habitat. Alternative 1 would incorporate the least total square footage of overwater cover (22,000-23,000 sf) compared to either the No-Action Alternative (46, 000 sf) or Alternative 2 (28,000-29,000 sf). Modifying the marina to incorporate updated design standards would also benefit the area.

Public Access

Relocation and construction of the proposed swimming beach would require shoreline rework, which would include excavation above the OHW mark, dredging and/or rework of material below the OHW mark, and the placement of fill (sand and gravel) to obtain adequate slope and shoreline characteristics. Potential impacts of these activities would be greater than the No-Action Alternative and comparable to Alternative 2.

The potential impacts on public access from Alternative 1 would be generally positive. The addition of the new public pier would provide new viewing opportunities, public access to deeper water, and new launch facilities for small PPVs, which are not part of the No-Action Alternative.

Provisions of public access would need to be consistent with public safety. Fire truck and emergency vehicle access to moorage piers would be available along the proposed shoreline path that would run parallel from the south end of the study area past the Bellevue Marina.

Ecological Characteristics and Functions

The short-term impacts from demolition and construction along the shoreline and in-water for Alternative 1 are anticipated to be similar to, but greater than, for the No-Action Alternative due to the necessary grading and construction of larger park facilities. Short-term impacts on ecological characteristics and functions of the shoreline and water are further described in Section 3.3 *(Plants and Animals)*.

Minimization of structures within shallow water and of total overwater cover in the study area may improve fish movement along the shoreline (refer to Section 3.3, *Plants and Animals,* for additional details).

Long-term changes for Alternative 1 include a reduction in the total number of in-water structures (from ten to three). Overwater coverage for this alternative would be reduced from 50,000 square feet to between approximately 22,000 and 23,000 square feet. This would be considered a beneficial impact on ecological functions, as would the restoration of a portion of the shoreline to more natural conditions.

Regulatory Compliance

Local, state, and federal permits from the City, Corps, WDFW, and Ecology would be required for all future project activities waterward of the OHW mark (e.g., Corps and WDFW permits),

along with their affiliated upland project elements, or for projects within 200 feet upland of the OHW mark (e.g., City Shoreline Permit).

Improvements in shoreline protection are proposed for approximately 950 feet of shoreline as part of Alternative 1. Portions of the shoreline would be restored to more natural conditions pursuant to LUC 20.25E.080.E.

Bellevue's LUC requires shoreline stabilization measures to be located at or landward of the OHW mark. To incorporate this policy, some upland shoreline area would be lost to provide slope from the top of the bank into the water. If working upland of the OHW mark is not feasible, more natural shoreline stabilization measures can be located waterward of the OHW mark, but the associated potential loss of aquatic habitat could trigger mitigation requirements, as previously described.

Consistency with SMA and Bellevue SMP

Currently, most of the proposed shoreline elements under Alternative 1 could be designed or modified to meet the SMA under the current and proposed Bellevue SMP codes and guidelines, as applicable.

Shoreline modifications that result in locating bulkheads landward of the OHW mark are, in general, more likely to be approved by the regulatory agencies than shoreline protection that is installed waterward of existing bulkheads or waterward of the OHW mark.

Moorage regulations within Bellevue's Shoreline Overlay District (LUC 20.25E) state that new moorage for marinas is allowed as a shoreline conditional use. While residential moorage facilities may not extend more than 150 feet waterward of the OHW mark, moorage at the Bellevue Marina or Meydenbauer Bay Yacht Club may extend farther into Meydenbauer Bay, within a legally described area (LUC 20.25E.080.N.3.vii and N.6.d). The three existing piers extend approximately 300 feet into the bay. The new fixed public pier, proposed for both public access and temporary moorage, is currently shown extending more than 150 feet waterward of the OHW mark, outside of the legally described areas in LUC 20.25E.080.N. Under current standards, the location of a pier more than 150 waterward of the OHW mark would have to provide more ecological benefit than if located closer to shore. Modifications to these LUCs may be obtained through the CAO report per LUC 20.25H.230. Other options would be to modify the design of the proposed new fixed pier to meet the LUC, or amend the LUC regulations.

Alternative 1 proposes substantially more public access to the shoreline and increased shoreline restoration opportunities, and it has the potential to substantially improve ecological function of the shoreline compared to the No-Action Alternative. These measures are all key recommendations incorporated in the draft shoreline management recommendations (City of Bellevue 2009).

3.5.2.4 Alternative 2

Alternative 2 includes the following future project-specific elements: demolishing nine single-family residences; regrading and landscaping the site; removing the beach park restroom, play equipment, and picnic facilities and daylighting a portion of the stream through the ravine; relocating and expanding the swimming beach; relocating a wetland; constructing a shoreline

path; replacing existing shoreline protection with more natural conditions along approximately 800 lf of the shoreline; removing Piers 2 and 3 including the roof structures; removing the six timber residential docks; expansion of moorage on Pier 1; and installing a public walkway with a fixed elevated viewing platform and floating boardwalk that extends from the shore, just south of Pier 1, to provide public access over the water. Alternative 2 includes constructing a community building, café, two below-grade parking garages, and terraces and paths as part of the park expansion. Alternative 2 also includes constructing multi-family and mixed-use structures, most of which are outside the designated shoreline zone.

Waves and Currents

As mentioned previously for Alternative 1, based on existing wind data, waves were estimated as part of the Shoreline Conditions Technical Memorandum (M&N 2008). Changes to hydrology of the site with respect to waves and currents due to the location of any of the proposed structures are not anticipated for Alternative 2. Impacts on and from waves and currents are therefore not expected.

Sediment

The potential impacts from sediment disturbance for Alternative 2 would be similar to Alternative 1, as previously described.

Shoreline Interface

Alternative 2 would require excavation and fill during construction to rework the shoreline and move and expand the swimming beach, similar to that described in Section 3.5.2.3 *(Alternative 1)*. The potential impacts on the shoreline interface from Alternative 2 would be similar to Alternative 1, as previously described.

Wetlands

Under Alternative 2, the wetland located along the shoreline at the north end of Meydenbauer Beach Park would be relocated and modified to a more natural state, similar to the modifications proposed in Alternative 1. Impacts would generally consist of loss of wetland area that must be addressed by creating additional wetlands within the study area. Alternative 2 proposes the creation of new wetland area at a location within the study area and therefore would not likely adversely impact the study area with respect to wetlands.

The potential long-term impacts on wetlands associated with the relocation proposed for Alternative 2 would be similar to the impacts of the No-Action Alternative (with no wetland modifications). The short-term (construction) impacts would be similar for Alternatives 1 and 2.

Piers, Docks, and Moorage

Alternative 2 includes the removal of Piers 2 and 3 including the roof structures, removal of the six timber residential docks, expansion of moorage on Pier 1, and the installation of a public walkway (with fixed elevated viewing platform and floating boardwalk) that extends from the shore just south of Pier 1, along with the installation of a small swimming platform off of the new swimming beach. The Meydenbauer Beach Park pier would remain. The Meydenbauer Beach Park pier would remain. Similar to Alternative 1, the City plans to seek Clean Marina Certification for the marina once construction for Alternative 2 has been completed.

Alternative 2 would require more in-water work (demolition and installation of piers and docks), than Alternative 1 (as described in Section 3.5.2.3) and the relative potential impacts also would be somewhat greater.

Permanent moorage at the Bellevue Marina would be reduced from 87 usable slips to between 25 and 35 long-term moorage slips because of the removal of Piers 2 and 3. The 14 slips designated for transient moorage would be retained. Additional moorage and boating-oriented opportunities would also include guest tie-ups along the south side of the new public pier and hand-launching of people-propelled vessels, such as canoes or kayaks, along portions of the floating boardwalk. Similar to Alternative 1, construction at the marina affiliated with Alternative 2 would be subject to performance standards included in the City's updated SMP.

Similar to Alternative 1, Alternative 2 would also provide opportunities for public amenities for boaters. A sewage pump-out facility could be incorporated onto Pier 1, and the location of such a facility would need to consider adequate water depth and navigable channel width for boat access to the facility. Minor upland improvements, such as security fencing modifications, would need to be incorporated to provide public access to the pump-out locations.

Although Pier 1 would be expanded in this alternative, the net result to moorage in the marina would be fewer slips overall, relative to the No-Action Alternative and Alternative 1. The slips would extend farther to the north, where the bay widens, and therefore would result in less impact on navigation for the water area south of the project site.

Public Access

Similar to Alternative 1, the relocation and construction of the proposed swimming beach would require shoreline rework, which would include excavation above the OHW mark, dredging and/or rework of material below the OHW mark, and the placement of fill and sand fill to obtain adequate slope and shoreline characteristics. Potential impacts of these activities would be greater than the No-Action Alternative and comparable to Alternative 1.

The addition of the public pier with a fixed elevated viewing platform and floating boardwalk would provide new viewing opportunities, public access for guest moorage and tie-up opportunities, and new launch facilities for small people-propelled vessels, which are not part of the No-Action Alternative.

Alternative 2 also proposes to incorporate a swimming platform and lanes, similar to what exists at the current swim beach. If the swimming platform were a permanent structure, it would have to be permitted and installed with the other in-water elements proposed for Alternative 2.

Provisions of public access need to be consistent with public safety. Fire truck and emergency vehicle access to moorage piers would be made available along the proposed shoreline path that runs parallel from the south end of the study area past the Bellevue Marina.

The potential impacts on public access from Alternative 2 would be generally beneficial and similar to Alternative 1.

Ecological Characteristics and Functions

The short-term impacts from demolition and construction along the shoreline and within the water for Alternative 2 are anticipated to be similar to those previously described. Long-term changes for Alternative 2 include a reduction in the total number of in-water structures (from ten to three). Overwater cover for this alternative would be reduced from 50,000 square feet to between approximately 28,000 and 29,000 square feet.

The installation of a public pier (with elevated viewing platform and floating boardwalk) would provide more overwater cover over shallow water habitat, relative to Alternative 1.

The impacts from Alternative 2 would be beneficial due to the reduction in overwater coverage relative to the No-Action Alternative. However, there would be more overwater cover than under Alternative 1. The shoreline restoration also would benefit ecological functions.

Regulatory Compliance

Local, state, and federal permits from the City, Corps, WDFW, and Ecology would be required for all work within 200 feet of the OHW mark and all affiliated in-water work.

The floating boardwalk proposed under Alternative 2 may be more difficult to permit with state and federal agencies as it proposes overwater cover of shallow water habitat (more critical for juvenile salmonids). Public access to shallow water is already available at the study area, and this addition of shallow water access may be deemed to result in avoidable impacts on critical habitat. When future projects are reviewed by resource agencies, the boardwalk might trigger habitat creation to address adverse effects on habitat, as described in Section 3.3 (*Plants and Animals*).

Consistency with SMA and Bellevue SMP

Similar to Alternative 1, Alternative 2 proposes more public access to the shoreline and increased shoreline restoration opportunities, and it has the potential to substantially improve ecological function of the shoreline compared to the No-Action Alternative. However, Alternative 2 also provides fewer ecological improvements to the site compared to Alternative 1. For example, Alternative 1 proposes the greatest length of shoreline restoration of all of the alternatives (refer to Table 2.5-1 for a comparison of the alternatives). Alternative 1 also proposes less overwater cover and total impervious surface when compared to Alternative 2. Alternative 2 provides the most recreation opportunities along the shoreline.

Ecological conservation, improved ecological function, and improved recreational opportunities on or along the shoreline are key priorities of the City's existing SMP and of their currently drafted shoreline management recommendations (City of Bellevue 2009). Both action alternatives better reflect these key priorities when compared to the No-Action Alternative; however, either action alternative could be designed and/or modified to better meet the existing and proposed Bellevue SMP.

3.5.3 Mitigation Measures

Project-specific review of any of the three alternatives would require construction BMPs to minimize erosion and other construction impacts, as described in Section 3.1, and any adverse

impacts on fish and wildlife that use the shoreline. As previously described in Section 3.3 (*Plants and Animals*), in-water work would require ESA consultation with NMFS and USFWS prior to future project construction to ensure that appropriate mitigation measures are implemented to protect any listed species in the study area.

Future project-specific mitigation measures to reduce long-term impacts may include a combination of the following measures that are promoted by local, state, and federal regulatory entities as part of their review and approval process:

- **Reduce total overwater cover.** Alternative 1 would result in less total overwater cover than Alternative 2 and might be preferred by the regulatory agencies, depending on specific design features and public access requirements.

- **Increase light transmission through over-water structures, through use of grating or other light transmission products (sun tunnels, glass prisms, etc.).** A north-south orientation also would reduce overwater shading (Burdick and Short 1999, Shaefer and Lundin 1999). These measures could be incorporated into either action alternative.

- **Minimize the total number and size of required support piling, without jeopardizing structural integrity**. This measure could be incorporated into either action alternative.

- **Restore shoreline to more natural conditions**. Alternative 1 incorporates somewhat more natural shoreline restoration and protection than Alternative 2.

- **Enhance native shoreline vegetation**. This measure could be incorporated into either action alternative. Alternative 1 provides greater opportunity for native and overhanging vegetation compared to Alternative 2.

The new fixed public pier, proposed for both public access and temporary moorage in Alternative 1, is currently shown extending more than 150 feet waterward of the OHW mark. Under current regulations, approval of this type of structure could require a critical areas report and review under LUC 20.25H.230. The fixed pier is also close to the extent designated as "permitted for commercial, public access, marina, or yacht club moorage in Meydenbauer Bay" (LUC 20.25E.080.N.3.b.vii). As part of project-level design, the structure likely would need to be designed to comply with this line, or LUC 20.25E could be modified to allow the pier to extend out farther. If the structure extends waterward over non-City property (e.g., DNR-managed lands), then such an extension could require aquatic authorizations from the DNR.

The measures summarized above would be incorporated into the permit approvals and final project design. The applicable regulatory agencies also would require that future projects provide sufficient justification of the size and placement of overwater structures. Standards and thresholds vary by regulatory agency and would be project-specific. Generally, larger structures would be more difficult to permit than smaller structures, regardless of proposed mitigation measures.

3.5.4 Summary of Impacts

Implementation of the project alternatives would have impacts on the shoreline in the study area. Impacts would occur both in the short term (associated with construction activities), as well as over the long term (associated with changes to habitat conditions). In the short term, in-water and shoreline construction-related impacts, such as water turbidity or possible shoreline erosion, and could reduce water quality in the study area. Such impacts would be slightly more pronounced under the action alternatives relative to the No-Action Alternative, given the greater level of development proposed; however, such impacts are considered temporary for all project alternatives and could be mitigated for by the implementation of BMPs and other construction restrictions required by the necessary permits or by relevant law or code. They could also be mitigated for by habitat creation at the site (the long-term benefits of the action alternatives could outweigh the short-term temporary negative impacts associated with construction activities). Over the long term, most anticipated impacts are expected to be beneficial, in the form of general habitat improvements to the shoreline area. Both action alternatives would include the replacement of the existing shoreline with more natural shorelines compared to the No-Action Alternative, and both would daylight sections of the stream at the west end of the park. Both action alternatives would reduce the total overwater cover associated with the marina, improve existing marina infrastructure compared to the No-Action Alternative, and improve overall water-related recreational opportunities at the site. For the two action alternatives, reduction of permanent moorage capacity at the marina would have minor impacts on navigation when compared to the No-Action alternative.

Significant unavoidable adverse shoreline impacts are not anticipated from any of the project alternatives with the implementation of appropriate measures as described in this section (construction BMPs, natural shoreline design, etc.). Overall, the action alternatives could result in the most beneficial impacts on the existing shoreline compared to the No-Action Alternative.

3.6 PARKS AND RECREATION

This section addresses the parks and recreation facilities within and adjacent to the study area, as well as the larger park planning context of the project alternatives. This provides the foundation to analyze and describe changes that could result from implementing the project alternatives.

3.6.1 Affected Environment

3.6.1.1 Existing Conditions

Park and Recreation Inventory

The study area for the Meydenbauer Bay Park and Land Use Plan includes one City of Bellevue park (Meydenbauer Beach Park) and is near three other City of Bellevue parks (Downtown Park, Wildwood Park, and Clyde Beach Park) (Figure 3.6-1). The northwestern portion of the study area is defined by the boundaries of Meydenbauer Beach Park. The northeastern portion of the study area is adjacent to Downtown Park, and the southeastern portion of the study area is adjacent to Wildwood Park. The City-owned Bellevue Marina completes the study area waterfront, and abuts a private yacht club at its southern edge.

Meydenbauer Beach Park

Meydenbauer Beach Park is a long, narrow park following a steep ravine just west of 98th Avenue NE and extending to the shore of Meydenbauer Bay. The 2.8-acre park can be roughly divided into three sections: upper ravine, middle terrace, and lower beach.

The upper section consists of a steep-walled forested ravine with an access road and a 28-space parking lot at the end of the road. This road off of NE 1st Street provides the only vehicular and accessible access to the park. The Lake Washington Boulevard bridge spans the park ravine (Figure 3.6-2). Because of topographic constraints, vehicular access is not possible from Lake Washington Boulevard. Secondary pedestrian access to the park is provided by steep stairs from both the bridge grade and NE 1st Street down to the park. As the ravine widens toward the middle portion of the park, there is a lawn area with several sculptures. A paved path leads to the lower sections of the park. Single-family homes back onto this portion of the park, where heavy vegetation blurs the visual distinction between park area and fenced, private rear yards.

The middle section of the park consists of a series of grass and paved terraces with integrated play equipment and small viewpoints. Because of the natural and constructed terraces, this area feels somewhat fragmented. Uncovered picnic tables provide views of the bay.

The park's namesake beach is the element with the most regional importance. Because of the limited amount of public shoreline, all lakefront access points are considered citywide importance from the park planning perspective. The existing level of development is relatively simple. The northern portion of the park shoreline consists of a swimming beach framed by concrete steps and a public timber pier. To the south, the shoreline is protected by riprap with lawn above. A small building contains restrooms and lifeguard changing facilities.

See Section 3.3 (*Plants and Animals*) and Section 3.5 (*Shorelines*) for information regarding park vegetation and shoreline conditions, respectively.

Marina Area

Public and private marinas line the lake edge immediately south of Meydenbauer Beach Park. The public Bellevue Marina maintains three partially covered piers that provide permanent and transient moorage, with approximately 112 slips total (M&N 2008). The marina piers do not provide public access, and there is no public access for small craft such as canoes or kayaks. The former warehouse of American Pacific Whaling Fleet (the Whaling Building) is the largest closed structure and currently provides marina storage. Adjacent to the pier structures are three duplex residential structures, one of which (formerly an icehouse) is currently home to the resident harbormaster. The asphalt parking area provides approximately 60 spaces and is fully utilized during summer weekends and special events (Sasaki 2008).

The private Meydenbauer Bay Yacht Club is located immediately south of the study area and consists of a two-story upland clubhouse and three covered piers. In addition to providing permanent moorage, the yacht club provides a range of activities for members and a youth sailing program that runs during the summer and includes non-members.

Meydenbauer Bay is itself a recreation destination. Numerous private docks line the bay and are a launching point for various boating activities, including kayaking and personal watercraft (e.g., jet skis). Because of the protected character of the bay, it is also a destination for power and sail boats from other locations. Use levels are seasonal, peaking with major summer holidays and events. It is at these times that there is highest demand for public marina facilities.

Wildwood Park

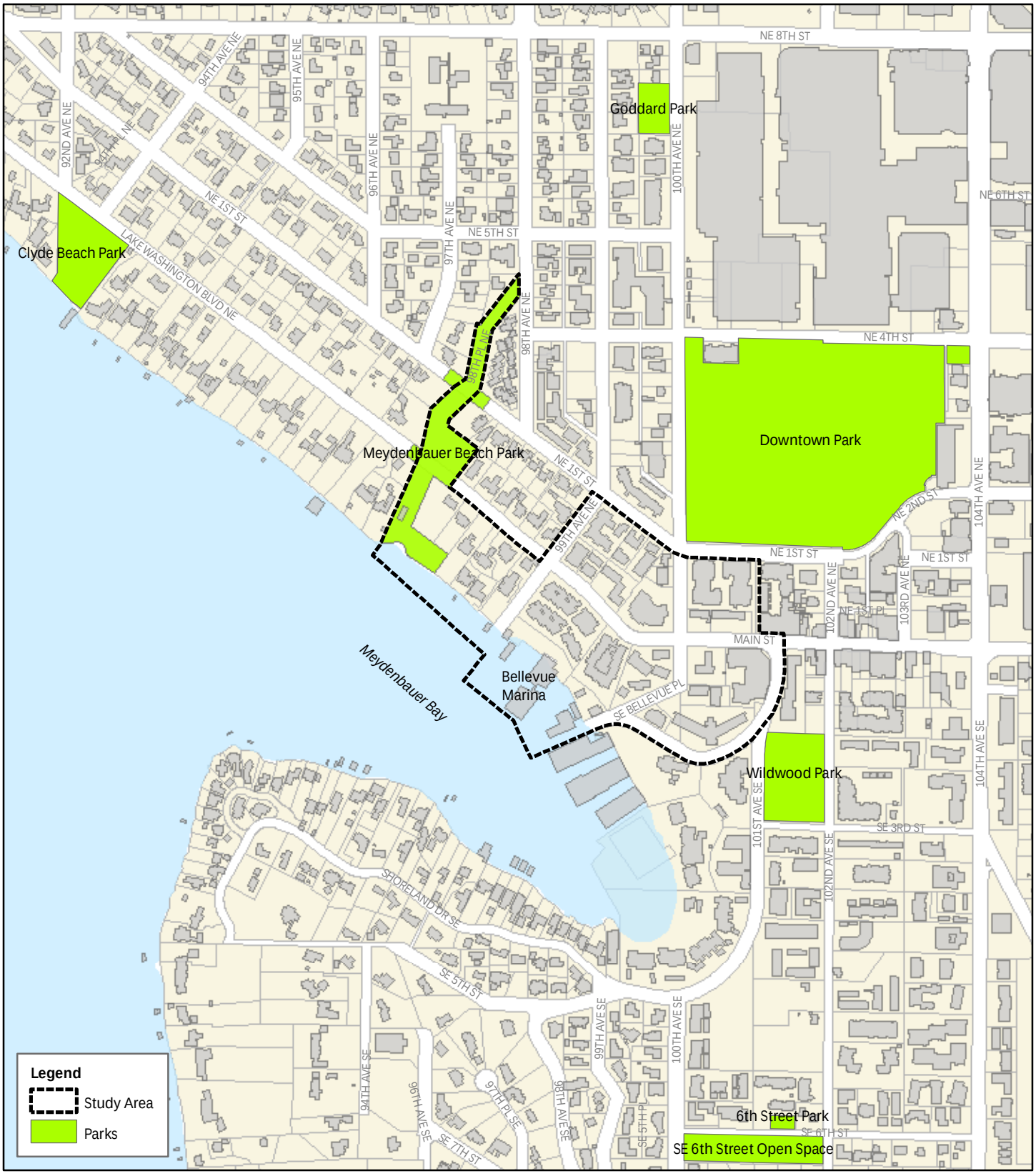
Wildwood Park is located adjacent to the study area, off of 101st Avenue NE and Meydenbauer Way SE. The simple appearance of this 2.3-acre parcel belies its importance to the history of the Bellevue waterfront (Figure 3.6-2). In the early part of the last century, the park was a privately owned recreation facility with a large open air dance pavilion. Visitors from Seattle would arrive by water to take advantage of the entertainment.

In its current form, the park covers a smaller area and is no longer directly connected to the waterfront. Most of the park is characterized by relatively managed forest. Several areas contain flowerbeds and more formal landscaping. Small areas of open lawn along 101st Avenue SE allow for passive recreation. Paved walkways provide access and circulation throughout the park.

Downtown Park

As the predominant open space in the central business district, the 20-acre Downtown Park serves multiple functions, from civic gathering place to passive recreation. A large, central, open lawn area allows for passive recreation and informal field sports. A large stone water feature rings the park and defines a walking path around the park, providing a visual link to the neighborhoods on the edges of the park (Figure 3.6-2). A large waterfall and pond are located at the southwest corner of the park. The drop-in grade at this corner allows for some westward views, while the waterfall and pool emphasize the natural flow of water toward Lake Washington.

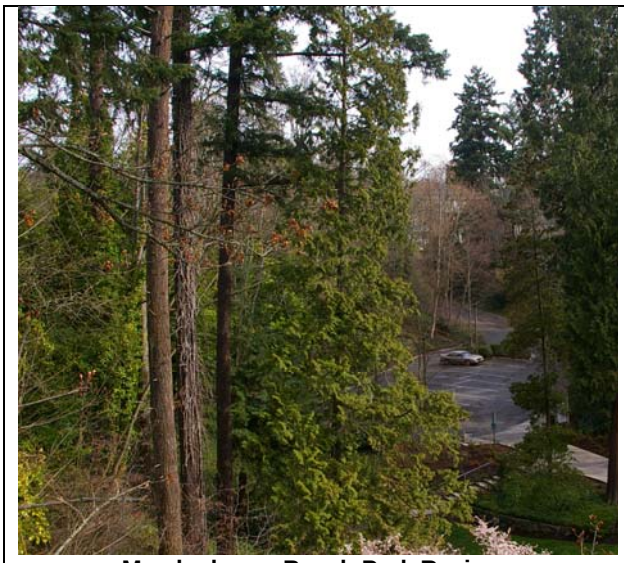
In contrast to the formal urban vocabulary of the circular fountain and lawn, a loosely organized children's play area occupies the southwestern corner of the park. A small restroom structure is also located there.



Source: City of Bellevue GIS 2009

Figure 3.6-1: Parks

Meydenbauer Bay Park and Land Use Plan EIS
City of Bellevue



Meydenbauer Beach Park Ravine

Meydenbauer Beach Park Pier

Meydenbauer Beach Park Swimming Beach

Beach and Adjacent Single-Family Home

Wildwood Park Entry

Downtown Park Water Feature

Figure 3.6-2: Park Photos.

Accommodating play areas for families was part of the original Downtown Park Master Plan, and this area meets that programmatic goal. From an urban design standpoint, the smaller scale and loose organization of this area do not reinforce the City's goal of creating a clearly defined corridor from downtown to the lake.

Non-Recreation Parcels

There is currently little transition or integration between parks and recreation-oriented amenities and nearby properties that reflect the various land uses and development types within the study area. Residential developments of differing scales occupy most of the private parcels. Oriented in various directions, they have little relationship to each other or to the surrounding streets. Fences and open parking face most streets and the parking area of the public marina. Front-rear and public-private relationships are not consistent.

Street rights-of-way are relatively unimproved in terms of landscaping, sidewalks, and other pedestrian amenities that facilitate public access. The public realm lacks consistent spatial definition because of such minimal and inconsistent street improvements and inconsistent building-to-street relationships. As a result, public rights-of-way do not create a network linking the existing parks and recreational facilities.

As described above, Meydenbauer Beach Park is set deep within a ravine below Lake Washington Boulevard NE. Signage directs vehicular access to the park through a series of residential streets with little physical or contextual connection to the public function of the park. Single-family residences back onto the park, creating an awkward relationship between public and private outdoor space.

Summary

The City of Bellevue has long had a vision of connecting the Meydenbauer Bay waterfront to Downtown Park to create a signature park and waterfront destination. With the acquisition of its first properties in the 1950s, the City first developed the Meydenbauer Beach Park. In 1987, the City identified the acquisition of the Meydenbauer Bay waterfront as a major focus to provide waterfront amenities and connect the waterfront to Downtown Park and the downtown. Since the early 1990s, the City has progressively acquired land along Meydenbauer Bay to create Meydenbauer Bay Park and provide an important recreational opportunity for the citizens of Bellevue. The City has acquired these parcels though various funding mechanisms, some of which contain provisions restricting or directing the purpose of redeveloping the property for parks and open space uses.

The study area sits between Bellevue's downtown, a regional hub of increasing vitality and commercial importance, and older single-family lakeside neighborhoods. At present, Meydenbauer Beach Park provides an adequate level of service for the passive recreational needs of the immediate residential neighborhoods.

Waterfront access and public open space are a valuable component of the downtown park system and to the City of Bellevue's overall park system. The proximity of Meydenbauer Beach Park makes it an attractive destination and point of waterfront access for downtown residents, workers, and visitors. However, more intensive use of the park and, by extension, greater access

to Lake Washington are currently limited by the size of the park and by inadequate pedestrian, vehicular, and visual access.

3.6.1.2 Regulatory Setting

Growth Management Act (GMA)

Washington State's 1990 Growth Management Act mandated comprehensive planning at the regional and subregional levels. Development of appropriate recreation facilities and preservation of open space are required by the GMA as complements to urban growth. The City of Bellevue has focused on the development of an active, vibrant, and urbanized central core. The City also wishes to provide parks and recreational opportunities, and open space preservation, as another vital component.

State Environmental Policy Act (WAC 197-11)

SEPA and its implementing regulations (WAC 197-11) mandate consideration of parks and recreation among the elements of the environment to be considered. Specifically, the description of significant impacts in an EIS should include the displacement of any existing recreational uses that may result from the project alternatives (WAC 197-11-444).

Park Planning Context

Despite the relatively small size of the study area, the area features prominently in the context of citywide park planning. Meydenbauer Bay has been identified as the terminus of the Lake to Lake Trail, a central element of the City's Parks and Open Space System Plan (City of Bellevue 2003). The Lake to Lake Trail would provide a continuous connection from Lake Sammamish to the shore of Lake Washington. The Meydenbauer Bay Park planning process addresses trail connectivity and waterfront access, two primary focus areas of the 2003 Parks and Open Space System Plan:

- *Open Space, Greenways, Wildlife Corridors and Trails:* Acquiring and retaining open space to meet passive and active recreation needs of the community, to protect wildlife and critical habitat areas, and to provide linkages between parks and activity areas.

- *Waterfront Access:* Acquiring and developing additional waterfront property to meet community interest.

The Parks and Open Space System Plan (City of Bellevue 2003) also identifies specific recommendations for each planning subarea. The first three recommendations identified for the North Bellevue Subarea are:

- Complete the waterfront property acquisition from Meydenbauer Beach Park to the marina.

- Provide pedestrian connection from Meydenbauer Beach Park and marina to the Downtown Park and central business district (in multiple subareas).

- Complete a major waterfront park development at Meydenbauer Beach/Meydenbauer Park.

Recommendations for the Downtown Bellevue Subarea include:

- Provide a physical and visual connection between the Downtown Park and Meydenbauer Bay.

- Complete the Lake-to-Lake Trail system though downtown.

Recommendations for the Southwest Bellevue Subarea also include completion of the Lake to Lake Trail.

The Parks, Open Space, and Recreation element of Bellevue's Comprehensive Plan (City of Bellevue 2008) also addresses similar issues, by policy:

- **POLICY PA-7.** Provide additional public access to Lakes Washington and Sammamish.

- **POLICY PA-8.** Coordinate park planning, acquisition, and development with other City projects and programs that implement the Comprehensive Plan.

The Downtown Subarea Plan states:

- **Policy S-DT-87.** Provide a graceful pedestrian connection from Downtown Park through Old Bellevue to Meydenbauer Bay.

As an expression of their interest in developing a more prominent waterfront park, the City has set specific policy direction for the study area. The Meydenbauer Bay Park and Land Use Plan Steering Committee is directed to provide guidance to City staff in developing work products to accomplish the Meydenbauer Bay Park. The Steering Committee is guided by several broad planning principles approved by the City Council for the project (City of Bellevue 2007), listed below.

- **Principle 1: Remarkable and memorable shoreline experience.** The park will be an extraordinary community-wide public asset. The new park will greatly increase waterfront access, recreational opportunities for all Bellevue residents, and in conjunction with its proximity to the Downtown Park and neighborhood, establish Bellevue as a waterfront city. The surrounding area should complement and take advantage of the unique shoreline location.

- **Principle 2: Spectrum of activities.** The new park should provide visitors with a wide range of activities and experiences, from active recreation such as swimming and sailing to passive enjoyment of intimate, green, natural areas. The park plan should artfully blend traditional park uses with a new urban experience, allowing individuals to enjoy different or multiple experiences with each visit or over time.

- **Principle 3: Complementary land uses.** Urban design and land uses in the upland area adjacent to the park should be pedestrian-oriented and serve the broader community to make the transition from the upland to the shoreline seamless, enjoyable, inviting, and compelling.

They should draw the pedestrian toward the water, convey a sense of excitement, and provide an interactive experience between the waterfront and upland areas.

- **Principle 4: Increased physical and visual access.** Corridors that visually open up the waterfront from upland areas and that facilitate pedestrian movement from Downtown Park to the waterfront should be maximized. It is critical that corridors and public spaces overcome real or perceived physical obstacles to reaching the shoreline.

- **Principle 5: Pedestrian priority.** The park and its connections should be places that can be enjoyed by pedestrians without fear of conflicts with automobiles. Where vehicle drives or parking areas are necessary, they should be designed and located to promote a "pedestrian first" message.

- **Principle 6: Economic vitality.** The park and its connections should support the nearby business community, providing an interactive and welcoming environment for downtown employees, residents, and visitors. Land uses and urban design elements should contribute to the economic vitality of the area as a whole.

- **Principle 7: Superior design.** The park should be reinforced, communicated, and celebrated through high quality urban design, landscape architecture, building design, and streetscape treatment, not only within the park itself but also throughout nearby public spaces and park connections. The plan should reflect a high standard of excellence.

- **Principle 8: Environmental stewardship.** The park design should respect and reflect its unique and sensitive waterfront setting. The plan should explore opportunities to incorporate measures that improve the shoreline characteristics and water quality in the bay. Best practices for sustainable building and land management should be incorporated.

- **Principle 9: History.** The park design should recognize the heritage of Meydenbauer Bay, from the time of Native Americans, explorers, and early settlers to the industries of whaling, ferrying, and today's residential and pleasure boat moorage. The plan should assess opportunities to preserve and reuse structures of historical note and incorporate means to animate the bay's rich heritage through public art and interpretive programs.

- **Principle 10: Neighborhood enhancement and protection.** The land use component should be a catalyst for revitalization of older uses while minimizing impacts on neighboring residential areas. Redevelopment of properties in the study area or conversion of apartment buildings to condominiums is expected in the foreseeable future. The Park and Land Use Plan should ensure through rules or incentives that these actions occur in a manner that is both consistent with the area's land use vision and sensitive to adjacent residential uses.

- **Principle 11: Coordinated planning process.** The Master Plan and the Park and Land Use Plan will impact and influence one another. The planning schedule needs to be flexible and expedient, necessitating close coordination.

- **Principle 12: Commitment to implement.** The Waterfront Plan should include an implementation strategy that leads to the fulfillment of the vision.

In preparation for developing an expanded waterfront park and downtown connection, the City of Bellevue acquired several parcels currently developed as single- and multi-family housing. A variety of funding sources were used to acquire these parcels, and certain stipulations were attached to the various funding sources. In general, lands must be used for passive public recreation and open space, and developed sports facilities are precluded. Table 3.6-1 and Figure 3.6-3 identify and illustrate the funding sources for the parcels acquired for park expansion and summarize associated restrictions.

Table 3.6-1. Open Space Land Acquisition Funding Source Requirements.

IAC/RCO Boating Facilities	General policies: • Intended to facilitate physical access to water. • Target facilities and resources predominantly serving the motorized boating community. Support facilities provided for transient public motorboat activities. • Universally barrier free. Ineligible activities: • Concession buildings or space. • Fuel sales equipment.
IAC/RCO Local Parks	Ineligible activities: • Concessionaire buildings. • Indoor facilities such as community buildings, environmental education centers, gyms, and swimming and therapy pools. • Offices, shops, residences, and meeting and storage rooms, except described under buildings in the state and local parks when they are essential to the operation and maintenance of the assisted site.
King County Conservation Futures	General Policies: • Must meet King County definition of Open Space. • Use is restricted to low-impact, non motorized, passive use recreation. This means no development of sportsfields, gyms, and courts for organized athletics. • Maximum of 15% of the total surface area may be developed or maintained with non-vegetative impervious surfaces. KC Council may waive where appropriate (e.g., Scenic Viewpoints).
Real Estate Excise Tax	No Specific Constraints

IAC = Interagency Committee; RCO = Washington State Recreation and Conservation Office.
Source: Provided By City of Bellevue.

Zoning

See Section 3.4 (*Land Use*) for a description of zoning within the study area. City parks are permitted either outright or by conditional use permit in all zones within the study area. In the R-3.5 residential zone, such as that area between (and including) the existing Meydenbauer Beach Park and 99th Avenue NE, beach parks, certain types of more intense recreational uses, and nonrecreation uses within park property require conditional use approval.

Shoreline Regulations

See Section 3.5 (*Shorelines*) for a description of the regulatory context specific to shoreline districts.

Summary

Consistent policy guidance from multiple City plans and legislative actions provides a policy and regulatory framework for increased park connectivity, between downtown and Lake Washington, and through completion of the Lake to Lake Trail.

These policies also support increased waterfront access and improved transitions. They suggest the development of a waterfront park that would serve the recreational needs of a variety of users in an environmentally conscious and aesthetically rewarding way, a park of community-wide significance. The principles suggest that improvement of the park should be a catalyst for compatible redevelopment of the surrounding uses. This suggests enhancement of public rights-of-way as well as targeted redevelopment of private parcels in a way that supports the overall urban design vision articulated in the Comprehensive Plan (City of Bellevue 2008), the Parks and Open Space System Plan (City of Bellevue 2003), and the 12 principles specific to the study area.

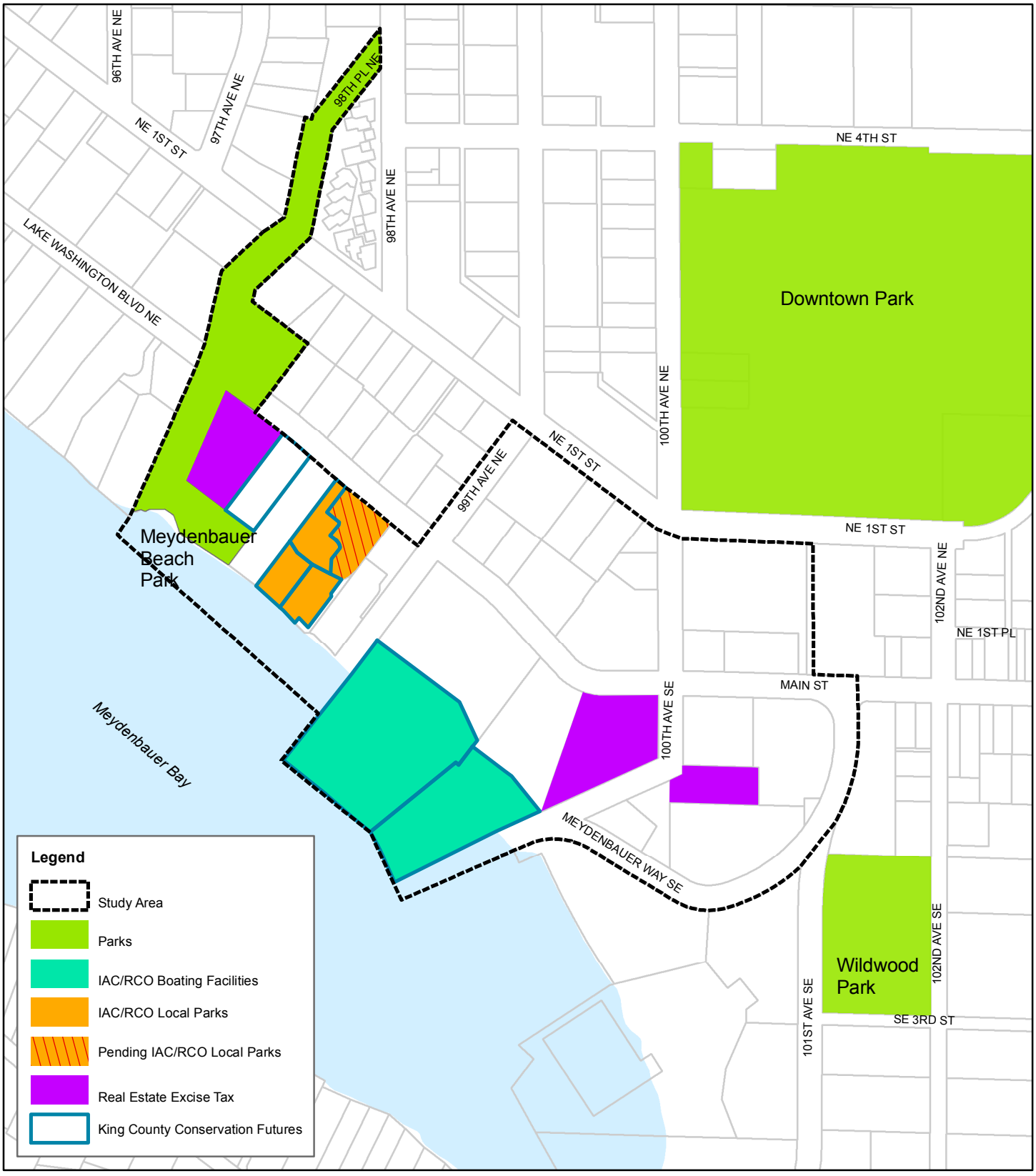
Zoning and applicable shoreline regulations will guide future development of parks and public recreational facilities. In particular, the shoreline regulations reflect a balance of recreation and park development that promotes public shoreline access with a sensitivity to environmental protection and compatibility.

3.6.2 Impacts

3.6.2.1 Methods

This Draft EIS evaluates a No-Action Alternative and two action alternatives (Alternative 1 and Alternative 2), as described in Chapters 1 and 2. The No-Action Alternative provides a baseline against which to measure both short-term and long-term impacts of the action alternatives on parks and recreation. This parks and recreation analysis is based on guidance provided by WAC 197-11-960 (SEPA environmental checklist) regarding identification, characterization, and mitigation of impacts. Park planners conducted a walking tour of existing parks and recreation facilities within and adjacent to the study area. Proposed facilities under each alternative were analyzed in terms of their compatibility with surrounding neighborhood uses; their accessibility to residents, local workers, and the general public; and the kinds of recreational opportunities provided.

The type, degree, and significance of potential impacts on parks and recreation were assessed based on compliance with state and local plans, policies, and regulations. Specifically, recreation opportunities were reviewed for consistency with relevant subarea plans, as well as the 12 principles adopted for this plan by the City Council. Generally, impacts relate to waterfront access, pedestrian connections, and transitions between public recreational uses and adjacent residential and commercial uses. A significant impact on parks and recreation resources was considered one that is reasonably likely to result in a more than moderate adverse impact. Because of the programmatic nature of this document, comparison of the impacts is primarily qualitative, emphasizing general differences in configuration, accessibility, and intended user groups.



Source: City of Bellevue GIS 2009

0 125 250 500 Feet

Figure 3.6-3: Park Parcel Acquisition Funding Sources

3.6.2.2 No-Action Alternative

Based on the full description of project elements for the No-Action Alternative (presented in Chapters 1 and 2), the following components of the alternative are particularly relevant to the impact analysis for parks and recreation:

- Meet parcel-specific requirements of any funding or grants used to acquire land for park development (e.g., remove residences, associated structures, and docks; limit impervious surface to 15 percent; retain at least 14 slips for transient moorage).
- Provide limited park improvements (e.g., construct shoreline pathway between 99th Avenue NE and existing beach park).
- Retain the public pier at Meydenbauer Beach Park.
- Retain three moorage piers (two covered) with approximately 87 long-term and 14 transient slips at the Bellevue Marina.
- Retain playground facilities
- Provide approximately 70 parking spaces for park and marina uses.

The most notable element of this alternative is the extension of Meydenbauer Beach Park to 99th Avenue NE and along the Bellevue Marina properties. The City would remove all existing structures south of Lake Washington Boulevard and west of 99th Avenue NE. The modest improvements would result in a larger park, similar to the existing Meydenbauer Beach Park.

Impacts of this alternative are summarized below for recreation demand, opportunities, and conformance with applicable policies.

Recreation Demand

Under the No-Action Alternative, it is assumed that the incremental redevelopment of multi-family parcels would occur within and in the vicinity of the study area. This would result in an increase of approximately 10 to 80 additional dwelling units within the study area. Redevelopment also would continue on the edge of downtown and multi-family neighborhoods adjacent to the study area, resulting in an increase in nearby residents and workers. New residences and commercial space are being built in an increasingly urban pattern with little associated open space. As directed by state and local policies, urban redevelopment should be accompanied by development of public open space and recreational facilities. Demand for active and passive recreational facilities will increase as households are added to central Bellevue.

Park and Recreation Opportunities

The provision of approximately 5.5 acres of additional lakefront open space would greatly increase passive recreational opportunities for the study area as well as for surrounding neighborhoods. This alternative would provide additional semi-forested park area, similar in size to Wildwood Park.

Despite the modest proposed improvements, the lakefront location of the park extension likely would attract users from a larger catchment than an equivalent upland park such as Wildwood Park. While the attraction of the beach itself would remain somewhat seasonal, the access to views and waterfront pathway would likely attract year-round use – both from the immediate neighborhood and from more distant parts of Bellevue. Under the No-Action Alternative, there

would be approximately 87 long-term moorage slips and at least 14 transient slips. This is a slight decrease in long-term moorage availability relative to the existing conditions due to the elimination of slips that are not accessible at all times and formalizing the number of transient slips.

Pedestrian facilities and connections to downtown are somewhat limited, but an increase in pedestrian activity would be expected because of the proximity to downtown. Traffic and parking demand would increase slightly, but would vary seasonally. Specific traffic impacts are described in Section 3.9 (*Transportation*).

Policy Conformance

As described in Section 3.6.1.2 (*Regulatory Setting*), state and local policies promote the development of recreation opportunities consistent with the centralized urban development encouraged by the Growth Management Act. The park expansion in the No-Action Alternative only partially addresses policy goals. The new park addresses the Bellevue's Comprehensive Plan, specifically Policy PA-7 of the Parks and Recreation Element: "Provide additional public access to Lakes Washington and Sammamish." It fails to meet Policy S-DT-87 "Provide a graceful pedestrian connection from Downtown Park through Old Bellevue to Meydenbauer Bay" (City of Bellevue 2008).

Of the 12 principles adopted specifically for the study area, the No-Action Alternative most clearly does not address Principle 4, which calls for a strong visual and pedestrian connection to downtown, and Principle 2, which calls for a range of activities. The streetscape improvements between the waterfront and downtown would continue to be modest and inconsistent under this alternative. The additional park area would provide view opportunities for park users and for passive recreation, but has more neighborhood than civic character. The marina would continue to benefit owners of larger boats without providing waterfront access for people-powered vessels. Principle 9 emphasizes the importance of interpreting the bay's history. While the Whaling Building and Ice House would remain as passive reminders of Bellevue's waterfront heritage, there would be no other interpretive facilities incorporated to meet interpretive and educational goals.

The No-Action Alternative appears to meet Bellevue's Land Use Code, as Lake Washington beachfront parks are a conditionally permitted use in single-family residential zones. Future project development would have to comply with approval criteria outlined in LUC 20.30B.140, which ensures that conditional uses are compatible with applicable policy and physical context.

Removal of the existing single family residences west of 99th Avenue NE fulfills the open space intent of the several funding sources used to acquire land for the park expansion (Figure 3.6-3 and Table 3.6-1). Generally the terms of these funding sources encourage providing access to passive or informal outdoor recreation areas and preclude development of organized sports fields.

3.6.2.3 Alternative 1

Based on the full description of project elements for Alternative 1 (presented in Chapters 1 and 2), the following components of the alternative are particularly relevant to the impact analysis for parks and recreation (*italicized text represents elements unique to this alternative)*:

Park and Recreation Opportunities

With its varied program and list of specific amenities, Alternative 1 offers a range of recreation opportunities not found in the No-Action Alternative. The open space and recreation opportunities included in this alternative would help support increased recreation demand, both resulting from redevelopment within the study area, but largely resulting from ongoing redevelopment of the greater downtown core.

Proposed public facilities including the Whaling Building as an historical/cultural maritime center, the environmental education center, and a community building would provide year-round education and recreation opportunities serving citywide needs. The total number of moorage slips would be reduced by approximately half (to approximately 40 long-term and at least 14 transient slips) through the removal of Pier 3. Although public moorage would be reduced, overall shoreline public access and alternative boating access would be enhanced. Alternative 1 includes access for PPVs and temporary moorage for approximately 15 PPVs. These facilities provide a lower cost option for water access, compared to the No-Action Alternative.

Over water and public viewing opportunities would be provided by a new public pier. Extending past the marinas on the south side of the beach, the pier would also improve safety by providing a buffer between the public swimming area and marina activity.

Public access to the park would be improved for both pedestrians and users arriving by car. By combining streetscape improvements leading from Downtown Park with the introduction of the hillside entry plaza, a clear pedestrian and visual connection would be created between downtown and the waterfront. Total parking would be only slightly greater than for the No-Action Alternative (106 compared to 70 spaces, respectively). However, removing the existing parking and access road to Meydenbauer Beach Park, and relocating parking directly off Lake Washington Boulevard, would remove the intrusion of this road into the park ravine. Relocating the surface parking lot from the vicinity of Bellevue Marina would reduce traffic conflicts with residential neighbors and allow for more of this area to be revegetated as part of the shoreline connection. The combined parking changes would improve parking visibility and accessibility to park users. Traffic impacts are described in more detail in Section 3.9 (*Transportation*).

As described in more detail in other sections of this chapter, impacts on shoreline and ecological resources are associated with relocating the swimming beach and public pier, and developing enhanced shoreline wetlands. From the perspective of recreational use, moving the beach and building an enhanced public pier would improve public waterfront access. Moving the beach away from adjacent single-family uses would reduce conflicts between seasonal intensity of beach use and the adjacent single-family residences. Similarly, daylighting the stream would provide both ecological benefits and improved buffering between active public park uses and single-family neighbors to the northwest.

Alternative 1 proposes a developed recreation destination with civic and regional appeal that would expand beyond the passive waterfront open space described in the No-Action Alternative.

Policy Conformance

As noted above and described in greater detail in Section 3.6.1.2 (*Regulatory Setting*), Washington state's Growth Management Act requires the development of recreation

opportunities concurrently with urban development. Like the No-Action Alternative, the park expansion in Alternative 1 addresses Bellevue's Comprehensive Plan Policy PA-7 of the Parks and Recreation Element: "Provide additional public access to Lakes Washington and Sammamish." In contrast to the No-Action Alternative, this alternative better addresses Policy S-DT-87: "Provide a graceful pedestrian connection from Downtown Park through Old Bellevue to Meydenbauer Bay" (City of Bellevue 2008).

Alternative 1 addresses a broad spectrum of objectives outlined in the 12 principles adopted for the study area. Strong connections to downtown, a variety of uses, and selective upland redevelopment all support the creation of a vibrant, pedestrian-oriented waterfront district linking downtown to the waterfront. The addition of a parking area and structured viewing platform along Lake Washington Boulevard would meet the objectives of increasing access and public views. Designating the Whaling Building as an historical/cultural maritime center would address Principle 9 calling for historical interpretation. Alternative 1 would, however, increase the intensity of park and recreation use and create a more urban character, with minimal transition to the single-family residences lining the north side of the boulevard. The restored stream corridor would provide environmental benefit, and the environmental education center would encourage stewardship opportunities. The structured character of the area south of Lake Washington Boulevard would require the removal of existing trees and provide less opportunity to meet the objectives of Principle 8 (environmental stewardship) over the short term compared to the No-Action Alternative.

Bellevue's Land Use Code allows Lake Washington beachfront parks as a conditionally permitted use in single-family residential zones. Any alternative would have to comply with approval criteria outlined in 20.30B.140 of Bellevue's Land Use Code, which ensures that conditional uses are compatible with applicable policy and physical context. Although Alternative 1 would result in more intensive park development and use than the No-Action Alternative, the conditional use approval process is intended to help address issues of compatibility that might arise compared to less intensive uses permitted outright. In addition, the alternative proposes a gradient of intensity, with relatively low-intensity park uses providing a buffer between more intensive park uses and lower-intensity residential uses northeast of the study area. Alternative 1 is generally more consistent with the City's policy goals than the No-Action Alternative.

Similar to the No-Action Alternative, Alternative 1 generally complies with the guidelines associated with funding sources for parcels the City acquired to expand the park. However, the community building proposed for the hillside below Lake Washington Boulevard may conflict with prohibitions against indoor structures as specified in the terms of the IAC/RCO funding agreement used to purchase that parcel. The structure likely would need to be shifted or modified to eliminate this apparent conflict. This easily could be addressed as part of project-level design.

Based on definitions in the Parks & Open Space System Plan (2003), Alternative 1 meets the standards for a community park (serving a broader public purpose than a neighborhood park) and for waterfront access (serving a citywide need for public access to Lake Washington).

Alternative 1A – Road Open Variant

Alternative 1A would provide similar recreational opportunities to Alternative 1. The open road variant would reconstruct or improve 100th Avenue SE as a public street with vehicular

connection to Meydenbauer Way SE. The hillside entry plaza would be smaller in Alternative 1A than in Alternative 1. Maintaining adjacent vehicular access may increase the perception of personal safety for the hillside entry plaza by increasing perceived visibility and public access.

The accommodation of vehicle access along the edge of the park would increase the potential for conflicts between vehicles and pedestrians and bicyclists. Alternative 1A would reduce the size and connection of public spaces by separating Wildwood Park from the larger park.

3.6.2.4 Alternative 2

Based on the full description of project elements for Alternative 2 (presented in Chapters 1 and 2), the following components of the alternative are particularly relevant to the impact analysis for parks and recreation (*italicized text represents elements unique to this alternative)*:

- Meet parcel-specific requirements of any funding or grants used to acquire land for park development (e.g., remove residences, associated structures, and piers; limit impervious surface to 15 percent; retain at least 14 slips for transient moorage).
- Provide comprehensive park improvements, entry plaza, and trail system.
- Relocate swimming beach.
- *Partially daylight the stream* through the park between Lake Washington Boulevard and lake.
- Relocate and improve wetland at mouth of stream.
- Remove Piers *2 and 3.*
- Provide moorage for *25-35 long-term slips* and 14 transient slips.
- Install new public pier with *elevated viewing platform* and *floating boardwalk.*
- Restore approximately *800 lf* of shoreline to more natural conditions.
- Use Whaling Building as historical/cultural maritime center.
- Use Ice House as harbormaster residence and storage or marina office.
- Provide approximately *8,000 sf community building*.
- Provide approximately *3,000 sf café.*
- *Provide up to six vendor kiosks.*
- Provide public parking (*approximately 156 spaces*) for park and marina uses, including two below-grade garages, one with access from 99th Avenue NE, and the other located toward the eastern end of the park.

Impacts of this alternative are summarized below for recreation demand, opportunities, and conformance with applicable policies.

Recreation Demand

Upland redevelopment would be the same as described above for Alternative 1. Any increase in recreation demand would come from redevelopment within the study area and the greater downtown core. As for all alternatives, additional demand would come from the ongoing addition of residential units and workers in the downtown core.

Park and Recreation Opportunities

From a programmatic level, the impacts of Alternative 2 on recreational opportunities and provision of open space are relatively similar to those described above for Alternative 1. Both

alternatives would meet the larger policy goals of establishing a visual and pedestrian connection from downtown to the waterfront, and of providing a substantial, multi-use waterfront park. Impacts of Alternatives 1 and 2 vary more in regard to shoreline implications and specific ecological issues, which are addressed in other sections of this chapter.

Nonetheless, Alternative 2 does differ in some ways with respect to recreation. The alternative would provide for slightly more intensely programmed use than Alternative 1. Specifically, Alternative 2 includes a larger community building as well as a café and vendor kiosks instead of the environmental education center and smaller community building proposed for Alternative 1. The larger community building would have space to accommodate a greater range of year-round activities, and the café and kiosks would establish a more active urban character for the park. This program mix would benefit park users by providing dining and other activities associated with an active urban waterfront, while still providing a waterfront experience as a retreat or escape from urban life.

Like the other alternatives, Alternative 2 retains at least 14 transient slips, providing moorage opportunities for marina visitors. However, the total number of slips would be less than the No-Action Alternative and also less than Alternative 1. Piers 2 and 3 would be removed, providing approximately 25-35 long-term moorage slips. Removing Piers 2 and 3 would provide the greatest public access to open lakefront of the three alternatives. This would improve views and waterfront access for the majority of park users, who presumably do not moor boats at Bellevue Marina. Pier 1 would be extended to the northwest, shifting marina activity and potential conflicts closer to the swimming beach. Alternative 2 also includes access for PPVs and temporary moorage for approximately 10 PPVs, compared to 15 PPVs under Alternative 1. Alternative 2 also proposes a PPV rental capability. These facilities provide a lower-cost option for water access, compared to the No-Action Alternative.

Proposed public access is similar for Alternatives 1 and 2. The primary difference is that Alternative 2 would maintain the existing access road and parking lot in the ravine section of Meydenbauer Beach Park. While the road would provide vehicular access to the north end of the park and public pier, it would limit the potential to daylight the creek and for the ravine to provide a more naturalized retreat experience for park visitors.

Relocating the swimming beach to the east would provide the same benefit as in Alternative 1 by segregating seasonally active beach use from adjacent single-family homes. However, because the public pier and parking would be maintained in their existing locations under Alternative 2, activity along the west park edge would remain generally similar to the No-Action Alternative.

Like Alternative 1, Alternative 2 proposes a developed recreational destination of civic and regional appeal. With its combination of active program elements and increased waterfront access and viewing opportunities, Alternative 2 would provide a waterfront park with a clear connection to the increasingly vibrant mixed-use activity of the downtown core.

Policy Conformance

The addition of open space and recreational opportunities addresses requirements of Washington state's Growth Management Act, which requires provision of recreation amenities concurrently with urban development. Alternative 2 also addresses local policies by improving public waterfront access. It also addresses the City's policy goals directed toward establishing improved

physical connection and character transitions between downtown and the Lake Washington waterfront. As described above for Alternative 1, and addressed in more detail in Section 3.6.1.2 *Regulatory Setting*), state and local policies promote the development of recreation opportunities consistent with urban development. Like the other two alternatives, the park expansion in Alternative 2 addresses the Bellevue Comprehensive Plan Policy PA-7 of the Parks and Recreation Element: "Provide additional public access to Lakes Washington and Sammamish." In contrast to the No-Action Alternative, Alternative 2 (like Alternative 1) is designed to provide a "graceful pedestrian connection from Downtown Park through Old Bellevue to Meydenbauer Bay," as described in Policy S-DT-87 of the Comprehensive Plan (City of Bellevue 2008).

Alternative 2 would meet many of the objectives of the 12 principles adopted to guide the Meydenbauer Bay Park and Land Use Plan. The alternative provides for a range of recreation uses and could provide a focal point for compatible redevelopment of other upland parcels. Compared to Alternative 1, Alternative 2 would provide an even more structured urban approach to developing the entry plaza and hillside connection. As with Alternative 1, the level of park development would provide certain recreational benefits identified in principle 1 (remarkable and memorable shoreline experience) and principle 2 (spectrum of activities). The greater amount of development overall would somewhat compromise the opportunity to incorporate principle 8 (environmental stewardship), especially over the short-term before site landscaping has matured.

As with the other alternatives, the park must meet applicable zoning criteria. Alternative 2 does not appear to conflict with existing zoning. As described above for the other alternatives, Bellevue's Land Use Code allows Lake Washington beachfront parks as a conditionally permitted use in single-family residential zones. Alternative 2, like the others would have to comply with conditional use criteria.

Similar to the No-Action Alternative and Alternative 1, Alternative 2 generally complies with the guidelines associated with funding sources for parcels the City acquired to expand the park. Based on definitions in the Parks & Open Space System Plan (2003), Alternative 2 meets the standards for a community park (serving a broader public purpose than a neighborhood park) and for waterfront access (serving a citywide need for public access to Lake Washington).

Alternative 2A – Road Open Variant

The impacts associated with Alternative 2A would be similar to Alternative 1A. The addition of a café and vendor kiosks in Alternative 2 suggests a more active urban retail-oriented character to the hillside. Preserving vehicular access along 100th Avenue SE would allow vehicular access to retail uses, providing an alternative to Meydenbauer Way SE. This would allow for more efficient servicing of these uses. As with Alternative 1A, maintaining adjacent vehicular access may increase the perception of personal safety for the hillside entry plaza by increasing perceived visibility and public access.

The accommodation of vehicle access along the edge of the park would increase the potential for conflicts between vehicles and pedestrians and bicyclists. Alternative 2A would reduce the size and connection of public spaces by separating Wildwood Park from the larger park.

3.6.3 Mitigation Measures

From the perspective of impacts on parks and recreation, all three alternatives make substantial strides toward meeting various policy goals intended to increase public recreational access to Lake Washington. Alternatives 1 and 2 come closer to providing the kind of open space and public access called for in the planning principles adopted for the study area. All three would be guided by the existing land use policies and provisions of Bellevue Land Use Code intended to ensure appropriate transitions between parks and adjacent neighborhood land uses. Specifically, the decision criteria associated with conditional use permitting would help to ensure the compatibility of future projects. The criteria emphasize consistency with the Comprehensive Plan and compatibility with the intended character of the property and vicinity (Bellevue LUC 20.30B.140).

As private parcels in the study area and adjacent portion of downtown continue to redevelop, there will be increased demand for recreation and open space amenities. Establishing quantitative open space goals for urbanizing parts of the City will help to ensure that Bellevue's reputation for high-quality open space is maintained as the city grows.

3.6.4 Summary of Impacts

Implementation of the project alternatives would benefit park and recreation resources within the study area. While largely beneficial over the long term, impacts over the short term (associated with construction activities) would temporarily displace visitors to the park and disrupt park use. Such temporary disruption would be slightly more pronounced under the action alternatives relative to the No-Action Alternative, given the greater level of development proposed; however, such impacts would be less than significant under all project alternatives.

Over the long term, redevelopment would increase the intensity of use within both the upland parcels and the park. Redevelopment of the upland parcels and, therefore, increased park demand would be greater under both action alternatives compared to the No-Action Alternative. Redevelopment of the park parcels under any of the project alternatives would be consistent with applicable policies and regulations. Alternatives 1 and 2, especially, would provide long-term beneficial effects consistent with the City's goals and policies guiding park development and improved transitions and connections between the park and surrounding neighborhoods. Alternative 2 would provide the most intensity of park redevelopment and opportunities for serving a wider user community. All three alternatives would provide at least 14 transient moorage slips; approximately 87, 40, and 25-35 long-term moorage slips would be provided under the No-Action Alternative and Alternatives 1 and 2, respectively. The action alternatives would provide PPV launch capability, as well as moorage for 15 PPVs (under Alternative 1) or 10 PPVs (under Alternative 2).

As proposed, all three project alternatives are at least partially consistent with existing City policies, and project-specific review would further ensure compliance with specific regulations. Long-term park and recreation impacts would be beneficial. No significant unavoidable adverse impacts are anticipated.